LOGICK:

Or, The RIGHT USE of

REASON

INTHE

Enquiry after TRUTH.

WITH

A Variety of Rules to guard against Error, in the Affairs of Religion and Human Life, as well as in the Sciences.

By ISAAC WATTS, D.D.

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Sir John Hartopp, Bart.

SIR,

Thro' your Hands what was written originally for the Assistance of your younger Studies, and was then

presented to you.

It was by the repeated Importunities of our Learned Friend Mr, John Eames, that I was perfuaded to revise these Rudiments of Logick; and when I had once suffered myself to begin the Work, I was drawn still onward far beyond my first Design, even to the Neglect, or too long Delay of other pressing and important Demands that were upon me.

It has been my Endeavour to form every Part of this Treatise both for the A 2 Instruc-

DEDICATION.

Instruction of Students to open their Way into the Sciences, and for the more extensive and general Service of Mankind, that the Gentleman and the Christian might find their Account in the Perusal as well as the Scholar. have therefore collected and propos'd the chief Principles and Rules of right Judgment in Matters of common and facerd Importance, and pointed out our most frequent Mistakes and Prejudices in the Concerns of Life and Religion, that we might better guard against the Springs of Error, Guilt and Sorrow, which furround us in every Stage of Mortality.

You know, Sir, the great Design of this noble Science is to rescue our reasoning Powers from their unhappy Slavery and Darkness; and thus with all due Submission and Deserence it offers a humble Assistance to divine Revelation. Its chief Business is to relieve the natural Weaknesses of the Mind by some better Efforts of Nature; it is to diffuse

DEDICATION.

diffuse a Light over the Understanding in our Enquiries after Truth, and not to furnish the Tongue with Debate and Controversy. True Logick is not that noify Thing that deals all in Dispute and Wrangling, to which former Ages had debased and confined it; yet its Disciples must acknowledge also, that they are taught to vindicate and defend the Truth, as well as to fearch it out. True Logick doth not require a long Detail of hard Words to amuse Mankind, and to puff up the Mind with empty Sounds, and a Pride of false Learning; yet some Distinctions and Terms of Art are necessary to range every Idea in its proper Class, and to keep our Thoughts from Confusion. The World is now grown fo wife as not to fuffer this valuable Art to be engrost by the Schools. In so polite and knowing an Age, every Man of Reason will covet some Acquaintance with Logick, fince it renders its daily Service to Wisdom and Virtue, and to A 3

DEDICATION.

the Affairs of common Life as well as to the Sciences.

I will not prefume, Sir, that this little Book is improved fince its first Composure, in Proportion to the Improvements of your manly Age. But when you shall please to review it in your retired Hours, perhaps you may refresh your own Memory in some of the early Parts of Learning: And if you find all the additional Remarks and Rules made so familiar to you already by your own Observation, that there is nothing new among them, it will be no unpleasing Reslection that you have so far anticipated the present Zeal and Labour of,

SIR,

Your most faithful and

obedient Servant,

London Aug. 24.

I. WATTS.

LOGICK:

OR,

The Right Use of REASON.

The INTRODUCTION and general SCHEME.

OGICK is the Art of using Reason * well in our Enquiries after Truth, and the Communication of it to others.

Reason* is the Glory of human Nature, and one of the chief Eminencies whereby we are raised above our Fellow-Creatures the Brutes in this lower World.

Reason, as to the Power and Principle of it, is the common Gift of God to all Men; tho' all are not favoured with it by Nature in an equal Degree: But the acquired Improvements of it in different Men, make a much greater Distinction between them than Nature had made. I could even venture to say, that the Improvement of Reason hath raised the Learned and the Prudent in the European World, almost as much above the Hottentots, and other Savages of Africa, as those Savages are by Nature superior to the Birds, the Beasts, and the Fishes.

Now the Design of Logick is to teach us the right Use of our Reason, or Intellectual Powers, and the Improvement of them in our selves and others; this is not only necessary in order to at-

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The Word Reason in this Place is not confined to the mere Faculty of reasoning or inferring one thing from another, but includes all the intellectual Powers of Man.

tain any competent Knowledge in the Sciences, or the Affairs of Learning, but to govern both the greater and the meaner Actions of Life. It is the Cultivation of our Reason by which we are better enabled to distinguish Good from Evil, as well as Truth from Falfwood: And both these are Matters of the highest Importance, whether we regard this

Life, or the Life to come.

The Pursuit and Acquisition of Truth is of infinite Concernment to Mankind. Hereby we become acquainted with the Nature of Things both in Heaven and Earth, and their various Relations to each other. It is by this means we discover our Duty to God and our Fellow-Creatures: By this we arrive at the Knowledge of natural Religion, and learn to confirm our Faith in divine Revelation, as well as to understand what is revealed. Our Wisdom, Prudence and Piety, our present Conduct and our future Hope, are all influenced by the Use of our rational Powers in the Search after Truth.

There are feveral Things that make it very necessary that our Reason should have some

Assistance in the Exercise or Use of it.

The first is, the Depth and Difficulty of many Truths, and the Weakness of our Reason to see far into Things at once, and penetrate to the Bottom of them. It was a Saying among the Ancients, Veritas in Puteo, Truth lies in a Well: and to carry on this Metaphor we may very justly say, that Logick does, as it were, supply us with Steps whereby we may go down to reach the Water; or it frames the Links of a Chain whereby we may draw the Water up from the Bottom. Thus, by the Means of many Reasonings well connected together, Philosophers in our Age have drawn a thousand Truths out of the Depths of Darkness.

ness, which our Fathers were utterly unacquainted with.

Another Thing that makes it necessary for our Reason to have some Affistance given it, is the Disguise and false Colours in which many things appear to us in this present imperfect State: There are a thousand things which are not in reality what they appear to be, and that both in the natural and the moral World: So the Sun appears to be flat as a Plate of Silver, and to be less than twelve Inches in Diameter; the Moon appears to be as big as the Sun, and the Rainbow appears to be a large substantial Arch in the Sky; all which are in reality gross Falshoods. So Knavery puts on the Face of Justice, Hypocrify and Superstition wear the Vizard of Piety, Deceit and Evil are often clothed in the Shapes and Appearances of Truth and Goodness. Now Logick helps us to ftrip off the outward Difguise of Things, and to behold them and judge of them in their own Nature.

There is yet a further Proof that our intellectual or rational Powers need some Assistance, and that is because they are so frail and fallible in the prefent State; we are imposed upon at home as well as abroad; we are deceived by our Senses, by our Imaginations, by our Passions and Appetites; by the Authority of Men, by Education and Custom, &c. and we are led into frequent Errors, by judging according to these false and flattering Principles, rather than according to the Nature of Things. thing of this Frailty is owing to our very Constitution, Man being compounded of Flesh and Spirit: Something of it arises from our Infant State, and our growing up by flow Degrees to Manhood, fo that we form a thousand Judgments before our Reason is mature. But there is still more of it owing to our original Defection from God, and

the foolish and evil Dispositions that are found in fallen Man: So that one great Part of the Design of Logick is to guard us against the delusive Influences of our meaner Powers, to cure the Mistakes of immature Judgment, and to raise us in some measure from the Ruins of our Fall.

It is evident enough from all these Things, that our Reason needs the Assistance of Art in our Enquiries after Truth or Duty; and without some Skill and Diligence in forming our Judgments aright, we shall be led into frequent Mistakes, both in Matters of Science, and in Matters of Practice, and some of these Mistakes may prove satal too.

The Art of Logick, even as it affists us to gain the Knowledge of the Sciences, leads us on toward Virtue and Happiness; for all our speculative Acquaintance with Things should be made subfervient to our better Condust in the civil and the religious Life. This is infinitely more valuable than all Speculations, and a wise Man will use them chiefly for this better Purpose.

All the good Judgment and Prudence that any Man exerts in his common Concerns of Life, without the Advantages of Learning, is called natural Logick: And it is but a higher Advancement, and a farther Affistance of our rational Powers that is designed by and expected from this

artificial Logick.

In order to attain this, we must enquire what are the principal Operations of the Mind, which are put forth in the Exercise of our Reason: And we shall find them to be these four, (viz.) Perception, Judgment, Argumentation, and Disposition,

Now the Art of Logick is compos'd of those Obfervations and Rules, which Men have made about these four Operations of the Mind, Perception, Judgment, Reasoning, and Disposition, in order to assist and improve them.

I. PerI. Perception, Conception, or Apprehension, is the mere simple Contemplation of Things offered to our Minds, without affirming or denying any Thing concerning them. So we conceive or think of a Horse, a Tree, High, Swift, Slow, Animal, Time, Motion, Matter, Mind, Life, Death, &c. The Form under which these Things appear to the Mind, or the Result of our Conception or Apprehension, is called an Idea.

II. Judgment is that Operation of the Mind, whereby we join two or more Ideas together by one Affirmation or Negation, that is, we either affirm or deny this to be that. So This Tree is high; That Horse is not swift; The Mind of Man is athinking Being; Mere Matter has no Thought belonging to it; God is just; Good Men are often miserable in this World; A righteous Governor will make a Difference betwint the Evil and the Good; which Sentences are the Effect of Judgment, and are called Propositions.

III. Argumentation or Reasoning is that Operation of the Mind, whereby we infer one Thing, i e. one Proposition, from two or more Propositions premised. Or it is the drawing a Conclusion, which before was either unknown, or dark, or doubtful, from some Propositions which are more known and evident. So when we have judged that Matter cannot think, and that the Mind of Man doth think, we then infer and conclude, that therefore the Mind of Man is not Matter.

So we judge that A just Governor will make a Difference betwixt the Evil and the Good; we judge also that God is a just Governor; and from thence we conclude, that God will make a Difference betwint the Evil and the Good.

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This Argumentation may be carried on further, thus, God will one Time or another make a Difference between the Good and the Evil: But there is little or no Difference made in this World; Therefore there must be another World wherein this Difference shall be made.

These Inferences or Conclusions are the Effects of Reasoning, and the three Propositions taken altogether are called a Syllogism, or Argument.

IV. Disposition is that Operation of the Mind, whereby we put the Ideas, Propositions and Arguments, which we have formed concerning one Subject, into such an Order as is fittest to gain the clearest Knowledge of it, to retain it longest, and to explain it to others in the best manner: Or, in short, it is the Ranging of our Thoughts in such Order, as is best for our own and others Conception and Memory. The Effect of this Operation is called Method. This very Description of the four Operations of the Mind and their Effects in this Order, is an Instance or Example of Method.

Now as the Art of Logick affifts our Conception, so it gives us a large and comprehensive View of the Subjects we enquire into, as well as a clear and distinct Knowledge of them. As it regulates our Judgment and our Reasoning, so it secures us from Mistakes, and gives us a true and certain Knowledge of Things; and as it surnishes us with Method, so it makes our Knowledge of Things both easy and regular, and guards our Thoughts from Consusion.

Logick is divided into four Parts, according to these four Operations of the Mind, which it directs, and therefore we shall treat of it in this Order.

THE

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FIRST PART

OF

LOGICK.

Of Perceptions and Ideas.

HE first Part of Logick contains Obfervations and Precepts about the first Operation of the Mind, Perception or Conception: And fince all our Knowledge, how wide and large soever it grow, is founded upon our Conceptions and Ideas, here we shall consider,

1. The general Nature of them.

2. The Objects of our Conception, or the Archetypes or Patterns of these Ideas.

3. The several Divisions of them.

4. The Words and Terms whereby our Ideas are exprest.

5. General Directions about our Ideas.

6. Special Rules to direct our Conceptions.

CHAP.

CHAP. I.

Of the Nature of Ideas.

FIRST, the Nature of Conception or Perception + shall just be mentioned, tho' this may feem to belong to another Science rather than

Logick.

Perception is that Ast of the Mind (or as some Philosophers call it, rather a Passion or Impression) whereby the Mind becomes conscious of any Thing, as when I seel Hunger, Thirst, or Cold, or Heat; when I see a Horse, a Tree, or a Man; when I hear a human Voice, or Thunder, I am conscious of these Things, and this is called Perception. If I study, meditate, wish, or fear, I am conscious of these inward Acts also, and my Mind perceives its own Thoughts, Wishes, Fears, &c.

An Idea is generally defined a Representation of a Thing in the Mind; it is a Representation of something that we have seen, selt, heard, &c. or been conscious of. That Notion or Form of a Horse, a Tree, or a Man, which is in the Mind, is called the Idea of a Horse, a Tree, or a Man. That Notion of Hunger, Cold, Sound, Colour, Thought, or Wish, or Fear, which is in the Mind, is called the Idea of Hunger, Cold, Sound,

Wift, &c.

It is not the outward Object, or Thing which is perceived, (viz.) the Horse, the Man, &c. nor

[†] Note, The Words Conception and Perception are often used promiscuously, as I have done here, because I would not embarrass a Learner with too many Distinctions; but if I were to distinguish them, I would say Perception is the Consciousness of an Object when present: Conception is the forming an Idea of the Object whether present or absent.

is it the very Perception or Sense, and Feeling, (viz.) of Hunger, or Cold, &c. which is called the Idea; but it is the Thing as it exists in the Mind by Way of Conception or Representation, that is properly called the Idea, whether the Object be present or absent.

As a Horse, a Man, a Tree, are the outward Objects of our Perception, and the outward Archetypes or Patterns of our Ideas; so our own Sensations of Hunger, Cold, &c. are also inward Archetypes or Patterns of our Ideas: But the Notions or Pictures of these Things, as they are considered, or conceived in the Mind, are precisely the Ideas that we have to do with in Logick. To see a Horse, or to seel Cold, is one Thing; to think of, and converse about a Man, a Horse, Hunger, or Cold, is another.

Among all these Ideas, such as represent Bodies, are generally called Images, especially if the Idea of the Shape be included. Those inward Representations which we have of Spirit, Thought, Love, Hatred, Cause, Effect, &c. are more pure and mental Ideas, belonging more especially to the Mind, and carry nothing of Shape or Sense in them. But I shall have occasion to speak more particularly of the Original and the Distinction of Ideas in the third Chapter. I proceed therefore now to consider the Objects of our Ideas.

CHAP.

CHAP. II.

Of the Objects of Perception.

SECT. I.

Of Being in general.

THE Object of Perception is that which is represented in the Idea, that which is the Archetype or Pattern, according to which the Idea is formed; and thus Judgments, Propositions, Reafonings, and long Discourses, may all become the Objects of Perception; but in this Place we speak chiefly of the first and more simple Objects of it, before they are join'd and form'd into Propositions or Discourses.

Every Object of our Ideas is call'd a Theme, whether it be a Being or Not Being; for Not Being may be proposed to our Thoughts, as well as that which has a real Being. But let us first treat of Beings, and that in the largest Extent of the Word.

A Being is confider'd as possible, or as actual.

When it is considered as possible, it is said to have an Essence or Nature; such were all Things before their Creation: When it is considered as actual, then it is said to have Existence also; such are all Things which are created, and God himself the Creator,

Essence therefore is but the very Nature of any Being, whether it be actually existing or no. A Rose in Winter has an Essence, in Summer it has Existence also.

Note,

Note, There is but one Being which includes Existence in the very Essence of it, and that is God, who therefore actually exists by natural and eternal Necessity: But the actual Existence of every Creature is very distinct from its Essence, for it may be,

or may not be, as God please.

Again, Every Being is consider'd either as subfisting in and by its self, and then it is called a Substance; or it subsists in and by another, and then it is called a Mode or Manner of Being. Tho' sew writers allow Mode to be call'd a Being in the same perfect Sense as a Substance is; and some Modes have evidently more of real Entity or Being than others, as will appear when we come to treat of them. These Things will furnish us with Matter for larger Discourse in the following Sections.

SECT. II.

Of Substances and their various Kinds.

A Substance is a Being which can subsist by itself, without Dependence upon any other created Being. The Notion of subsisting by itself gives occasion to Logicians to call it a Substance. So a Horse, a House, Wood, Stone, Water, Fire, a Spirit, a Body, an Angel are called Substances, because they depend on nothing but God for their Existence.

It has been usual also in the Description of Substance to add, it is that which is the Subject of Modes or Accidents; a Body is the Substance or

Subject, its Shape is the Mode.

But lest we be led into Mistakes, let us here take Notice that when a Substance is said to subsist without Dependence upon another created Being, all that we mean is, that it cannot be annihilated, or utterly destroy'd and reduced to nothing, by any Power inserior to that of our Creator; tho' its present particular

particular Form, Nature and Properties may be alter'd and destroy'd by many inserior Causes: a Horse may dye and turn to Dust; Wood may be turned into Fire, Smoak and Ashes; a House into Rubbish, and Water into Ice or Vapour; but the Substance or Matter of which they are made still remains, tho' the Forms and Shapes of it are altered. A Body may cease to be a House or a Horse, but it is a Body still; and in this Sense it depends only upon God for its Existence.

Among Substances some are thinking or conscious Beings, or have a Power of Thought, such as the Mind of Man, God, Angels. Some are extended and solid or impenetrable, that is, they have Dimensions of Length, Breadth, and Depth, and have also a Power of Resistance, or exclude every thing of the same kind from being in the same Place. This is the proper Character

of Matter or Body.

As for the Idea of Space, whether it be void or full, i.e. a Vacuum or a Plenum, whether it be interspers'd among all Bodies, or may be supposed to reach beyond the Bounds of the Creation, it is an Argument too long and too hard to be disputed in this Place what the Nature of it is: It has been much debated whether it be a real Substance, or a mere Conception of the Mind, whether it be the Immensity of the Divine Nature, or the mere Order of co-existent Beings, whether it be the manner of our Conception of the Distances of Bodies, or a mere Nothing. Therefore I drop the Mention of it here, and refer the Reader to the first Essay among the Philosophical Essays by I. W. published 1733.

Now if we seclude Space out of our Consideration, there will remain but two Sorts of Substances in the World, i. e. Matter and Mind, or as we otherotherwise call them, Body and Spirit; at least, we have no Ideas of any other Substance but these*.

Among Substances, some are called Simple, some are Compound, whether the Words be taken

in a philosophical or a vulgar Sense.

Simple Substances in a philosophical Sense, are either Spirits which have no manner of Composition in them, and in this Sense God is called a simple Being; or they are the first Principles of Bodies, which are usually called Elements, of which all other Bodies are compounded: Elements are such Sub-

* Because Men have different Ideas or Notions of Substance, I thought it not proper entirely to omit all Accounts of them, and therefore have thrown

them into the Margin.

Some Philosophers suppose that our Acquaintance with Matter or Mind reaches no farther than the mere Properties of them, and that there is a fort of unknown Being, which is the Substance or the Subject by which these Properties of solid Extension and of Cogitation are supported, and in which these Properties inhere or exist. But perhaps this Notion arises only from our turning the mere ab stracted or logical Notion of Substance or Self-subsstance into the Notion of a distinct physical or natural Being, without any Necessity. Solid Extension seems to me to be the very Substance of Matter or of all Bodies: and a Power of thinking, which is always in act, seems to be the very Substance of all Spirits; for God himself is an intelligent, almighty Power; nor is there any need to seek for any other secret and unknown Being, or abstracted Substance entirely distinct from these, in order to support the several Modes or Properties of Matter or Mind, for these two Ideas are sufficient for that Purpose; therefore I rather think these are Substances.

It must be confest, when we say, Spirit is a thinking Substance, and Matter is an extended solid Substance, we are sometimes ready to imagine that Extension and Solidity are but mere Modes and Froperties of a certain unknown Substance or Subject which supports them, and which we call Body; and that a Power of thinking, is but a mere Mode and Property of some unknown Substance or Subject which supports it, and which we call Spirit: But I rather take this to be a mere Mistake, which we are led into by the grammatical Form and Use of Words; and perhaps our logical Way of thinking by Substances and Modes, as well as our grammatical Way of talking by Substantives and Adjectives, help to delude us into this Supposition.

However, that I may not be wanting to any of my Readers, I would let them know Mr. Locke's Opinion, which has obtained much in the present Age, and it is this: "That our Idea of any particular Substance, is only "fuch a Combination of simple Ideas as represents that Thing as substiting by itself, in which the supposed or confused Idea of Substance (such as it is) is always ready to offer itself. It is a Conjunction of Ideas co-existing in such a Cause of their Union, as makes the whole Subject substit by itself, though the Cause of their Union be unknown; and our general Idea of Substance arises from the Self-subsistence of this Collection of Ideas."

Now if this Notion of Substance rest here, and be considered merely as an unknown Cause of the Union of Properties, it is much more easy to be admitted.

stances as cannot be resolved, or reduced, into two or more Substances of different Kinds.

The various Sects of Philosophers have attributed the Honour of this Name to various Things. The Peripateticks, or Followers of Aristotle, made Fire, Air, Earth and Water to be the four Elements, of which all earthly Things were compounded; and they supposed the Heavens to be a Quintessence, or fifth fort of Body distinct from all these: But, fince experimental Philosophy and Mathematics have been better understood, this Doctrine has been abundantly refuted. The Chymists make Spirit, Salt, Sulpbur, Water and Earth to be their five Elements, because they can reduce all terrestrial Things to these five: This feems to come nearer the Truth; though they are not all agreed in this Enumeration of Elements. In short, our modern Philosophers generally suppose Matter or Body to be one simple Principle, or folid Extension, which being diversified by its various Shapes, Quantities, Motions and Situations, makes all the Varieties that are found in the Universe; and therefore they make little Use of the Word Element.

Compound Substances are made up of two or

mitted: But if we proceed to suppose a sort of real, substantial, distinct Being, different from folid Quantity or Extension in Bodies, and different from a Power of thinking in Spirits, in my Opinion it is the Introduction of a needless scholastical Notion into the real Nature of Things, and then fancying it to have a real Existence.

Mr. Locke in his Essay of Hum. Und. Book II. Ch. 22. §. 2. seems to ridicule this common Idea of Substance, which Men have generally supposed to be a fort of Substante distinct from all Properties what over, and to be the Support of all Properties. Yet in Book IV. Ch. 3. §. 6. he seems to suppose there may be some such unknown Substante, which may be capable of receiving the Properties both of Matter and of Mind, (viz.) Extension, Solidity, and Cogitation; for he supposes it possible for God to add Cogitation to that Substance which is corporeal, and thus to cause Matter to think. If this be true, then Spirits (for ought we know) may be corporeal Beings or thinking Bodies, which is a Doctrine too favourable to the Mortality of the Soul. But I leave these Debates to the Philosophers of the Age, and will not be too positive in my Opinion of this astruse Subject.

See more of this Argument in Philosophical Essays before cited. Essays

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more simple Substances: So every Thing in this whole material Creation, that can be reduced by the Art of Man into two or more different Principles or Substances, is a compound Body in the

philosophical Sense.

But if we take the Words Simple and Compound in a vulgar Sense, then all those are simple Substances which are generally esteemed uniform in their Natures. So every Herb is called a Simple; and every Metal and Mineral; tho' the Chymist perhaps may find all his several Elements in each of them. So a Needle is a simple Body, being made only of Steel; but a Sword or a Knife is a compound, because its Hast or Handle is made of Materials different from the Blade. So the Bark of Peru, or the Juice of Sorrel is a simple Medicine: But when the Apochecaries Art has mingled several Simples together, it becomes a Compound, as Diascordium or Mithridate.

The Terms of pure and mixt, when applied to Bodies, are much akin to simple and compound. So a Guinea is pure Gold, if it has nothing but Gold in it, without any Alloy or baser Metal: But if any other Mineral or Metal be mingled with it,

it is called a mixt Substance or Body.

Substances are also divided into animate and inanimate. Animated Substances are either animal

or vegetable *.

Some of the animated Substances have various organical or instrumental Parts, fitted for a Variety of Motions from Place to Place, and a Spring of Life within themselves, as Beasts, Birds, Fishes, and Insects; these are called Animals. Other animated Substances are called Vegetables which have within themselves the Principles of another

Note, Vegetables as well as Animals have gotten the Name of animated Substances, because some of the Ancients supposed Herbs and Plants, Beasts and Birds, &c. to have a fort of Souls distinst from Matter or Body.

fort of Life and Growth, and of various Productions of Leaves, Flowers and Fruit, such as we see in Plants, Herbs and Trees.

And there are other Substances, which are call'd inanimate, because they have no fort of Life in

them, as Earth, Stone, Air, Water, &c.

There is also one fort of Substance, or Being, which is compounded of Body and Mind, or a rational Spirit united to an Animal; such is Mankind. Angels, or any other Beings of the spiritual and invisible World, who have assumed visible Shapes for a Season, can hardly be reckon'd among this order of compounded Beings; because they drop their Bodies, and divest themselves of those visible Shapes, when their particular Message is perform'd, and thereby shew that these Bodies do not belong to their Natures.

SECT. III.

Of Modes and their various Kinds, and first of essential and accidental Modes.

THE next fort of Objects which are reprefented in our Ideas, are called Modes, or

Manners of Being +.

A Mode is that which cannot subsist in and of itself, but is always esteemed as belonging to, and subsisting by, the Help of some Substance, which, for that Reason, is called its Subject. A Mode must depend on that Substance for its very Existence and Being; and that not as a Being depends on its Cause, (for so Substances themselves depend

[†] Note, The Term Mode is by some Authors applied chiefly to the Relations or relative Manners of Being. But in logical Treatises it is often used in a larger Sense, and extends to all Attributes whatsoever, and includes the most essential and inward Properties, as well as outward Respects and Relations, and reaches to Assistant themselves as well as Manners of Actions.

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on God their Creator; (but the very Being of a Mode depends on some Substance for its Subject, in which it is, or to which it belongs; so Motion, Shape, Quantity, Weight, are Modes of Body; Knowledge, Wit, Folly, Love, Doubting, Judging, are Modes of the Mind; for the one cannot substift without Body, and the other cannot substift without Mind.

Modes have their feveral Divisions, as well as Substances.

I. Modes are either effential, or accidental.

An essential Mode, or Attribute, is that which belongs to the very Nature or Effence of the Subject wherein it is; and the Subject can never have the same Nature without it; such is Roundness in a Bowl, Hardness in a Stone, Softness in Water, vital Motion in an Animal, Solidity in Matter, Thinking in a Spirit; for tho' that piece of Wood which is now a Bowl may be made square, yet if Roundness be taken away, it is no longer a Bowl: So that very Flesh and Bones, which is now an Animal, may be without Life or inward Motion; but if all Motion be entirely gone, it is no longer an Animal, but a Carcass: So if a Body or Matter, be divested of Solidity, it is a mere void Space or Nothing; and if Spirit be entirely without Thinking, I have no Idea of any Thing that is left in it; therefore fo far as I am able to judge, Consciousness must be its essential Attribute *: Thus all the Perfections of God are called his Attributes, for he cannot be without them.

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^{*} Note, When I call folid Extension an effential Mode or Attribute of Matter, and a Power of Thinking an effential Mode or Attribute of a Spirit, I do it in compliance with common Forms of Speech: but perhaps in reality these are the very Essences or Substances themselves, and the most substantial Ideas that we can frame of Body and Spirit, and have no need of any (we know not what) Substantial or unintelligible Substance to support them in their Existence or Being.

An effential Mode is either primary or secondary. A primary effential Mode is the first, or chief Thing, that constitutes any Being in its particular Essence or Nature, and makes it to be that which it is, and diftinguishes it from all other Beings: This is called the Difference in the Definition of Things, of which hereafter: So Roundness is the primary effential Mode, or Difference of a Bowl; the meeting of two Lines is the primary effential Mode, or the Difference of an Angle; the perpendicularity of these Lines to each other is the Difference of a right Angle: Solid Extension is the primary Attribute, or Difference of Matter: Consciousness, or at least a Power of Thinking, is the Difference, or primary Attribute of a Spirit *; and to fear and love God is the primary Attribute of a pious Man.

A secondary essential Mode is any other Attribute of a Thing, which is not of primary Confideration: This is call'd a Property: Sometimes indeed it goes toward making up the Essence, especially of a complex Being, so far as we are acquainted with it; sometimes it depends upon, and follows from the Essence of it; so Volubility, or Aptness to roul, is the Property of a Bowl, and is derived from its Roundness. Mobility, and Figure or Shape, are Properties of Matter; and it is the Property of a pious Man to love bis Neighbour.

An accidental Mode, or an Accident, is such a Mode, as is not necessary to the Being of a Thing, for the Subject may be without it, and yet remain of the same Nature that it was before; or it is that Mode, which may be separated or abolisht from its Subject; so Smoothness or Roughness, Blackness or Whiteness, Motion or Rest, are the Accidents of a Bowl; for these may be all chang'd, and yet the Body remain a Bowl still: Learning,

^{*} See the Note in the foregoing Page.

Justice, Folly, Sickness, Health, are the Accidents of a Man: Motion, Squareness, or any particular Shape or Size, are the Accidents of Body: Yet Shape and Size in general are essential Modes of it; for a Body must have some Size and Shape, nor can it be without them: So Hope, Fear, Wishing, Assenting, and Doubting, are Accidents of the Mind, tho' Thinking in general seems to be essential to it.

Here observe, that the Name of Accident has been oftentimes given by the old Peripatetic Philosophers to all Modes, whether effential or accidental; but the Moderns confine this Word Accident to the Sense in which I have described it.

Here it should be noted also, that tho the Word Property be limited sometimes in logical Treatises to the secondary essential Mode, yet it is used in common Language to signify these sour sorts of Modes; of which some are essential, and some accidental.

(1.) Such as belong to every Subject of that kind, but not only to those Subjects. So yellow Colour and Dustility are Properties of Gold; they belong to all Gold, but not only to Gold; for Saffron is also yellow, and Lead is dustile.

(2.) Such as belong only to one kind of Subject but not to every Subject of that kind. So Learning, Reading, and Writing, are Properties of buman Nature; they belong only to Man, but not to all Men.

(3.) Such as belong to every Subject of one kind, and only to them, but not always. So Speech or Language is a Property of Man, for it belongs to all Men, and to Men only; but Men are not always speaking.

(4.) Such as belong to every Subject of one kind, and to them only and always. So Shape and Divisibility

Divisibility are Properties of Body; so Omniscience and Omnipotence are Properties of the divine Nature, for in this Sense Properties and Attributes are the same, and except in logical Treatises there is scarce any Distinction made between them. These are called Propria quarto modo in the Schools, or

Properties of the fourth Sort.

Note, Where there is any one Property or effential Attribute fo superior to the rest, that it appears plainly that all the rest are derived from it, and fuch as is fufficient to give a full Distinction of that Subject from all other Subjects, this Attribute, or Property, is called the effential Difference, as is before declared; and we commonly fay, the Essence of the Thing consists in it; so the Essence of Matter in general seems to consist in Solidity, or folid Extension. But for the most part, we are fo much at a Loss in finding out the intimate Effence of particular natural Bodies, that we are forced to distinguish the effential Difference of most Things by a Combination of Properties. So a Sparrow is a Bird, which has fuch colour'd Feathers, and fuch a particular Size, Shape and Motion. So Wormwood is a Herb, which has fuch a Leaf of fuch a Colour, and Shape, and Tafte, and fuch a Root and Stalk. So Beatts and Fishes, Minerals, Metals and Works of Art fometimes, as well as of Nature, are diftinguished by such a Collection of Properties.

SECT. IV.

The further Divisions of Mode.

II. THE fecond Division of Modes is into abfolute and relative. An absolute Mode is that which belongs to its Subject, without Respect 2-

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fpect to any other Beings whatfoever: But a relative Mode is derived from the Regard that one Being has to others. So Roundness and Smoothness are the absolute Modes of a Bowl; for if there were nothing else existing in the whole Creation. a Bowl might be round and Smooth: But Greatness and Smallness are relative Modes; for the very Ideas of them are derived merely from the Comparison of one Being with others: a Bowl of four Inches Diameter is very great, compared with one of an Inch and a half; but it is very small in Comparison of another Bowl, whose Diameter is eighteen or twenty Inches. Motion is the absolute Mode of a Body, but Swiftness or Slowness are relative Ideas; for the Motion of a Bowl on a Bowling-Green is fwift, when compared with a Snail; and it is flow, when compared with a Cannon-Bullet.

These relative Modes are largely treated of by fome logical and metaphysical Writers under the Name of Relation: And these Relations themselves are farther subdivided into such as arise from the Nature of Things, and such as arise meerly from the Operation of our Minds; one fort are called real Relations, the other mental; so the Likeness of one Egg to another is a real Relation, because it arises from the real Nature of Things; for whether there was any Man or Mind to conceive it or no, one Egg would be like another: But when we consider an Egg as a Noun Substantive in Grammar, or as fignified by the Letters e, g, g, these are mere mental Relations, and derive their very Nature from the Mind of Man. These fort of Relations are called by the Schools Entia Rationis, or second Notions, which have no real Being, but by the Operation of the Mind.

III. The third Division of Modes shews us, they are either intrinsical or extrinsical. Intrinsical Modes are conceived to be in the Subject or Substance, as when we fay a Globe is round, or fwift, rolling, or at rest: Or when we say a Man is tall, or learned, these are intrinsic Modes: But extrinsic Modes are such as arise from something that is not in the Subject or Substance it felf; but it is a manner of Being which some Subflances attain by Reason of something that is external or foreign to the Subject; as, This Globe lies within two Yards of the Wall; or this Man is belov'd or hated. Note, Such fort of Modes, as this last Example, are called external Denominations.

IV. There is a fourth Division much akin to this, whereby Modes are faid to be Inherent or Adherent, that is, Proper or Improper. Adherent or improper Modes arise from the joining of some accidental Substance to the chief Subject, which yet may be separated from it; so when a Bowl is wet, or a Boy is cloath'd, these are adherent Modes; for the Water and the Cloaths are distinct Substances which adhere to the Bowl, or to the Boy: But when we say, the Bowl is swift or round; when we fay, the Boy is strong or witty, these are proper or inherent Modes, for they have a fort of In-being in the Substance it felf, and don't arife from the Addition of any other Substance to it.

V. Action and Passion are Modes or Manners which belong to Substances, and should not entirely be omitted here. When a Smith with a Hammer strikes a Piece of Iron, the Hammer and the Smith are both Agents, or Subjects of Ac-

tion:

tion; the one is the Prime or Supreme, the other the Suborinate: The Iron is the Patient, or the Subject of Passion, in a philosophical Sense, because it receives the Operation of the Agent: Tho' this Sense of the Words Passion and Patient differs much from the vulgar Meaning of them*.

VI. The fixth Division of Modes may be into Physical, i. e. Natural, Civil, Moral, and Supernatural. So when we consider the Apostle Paul, who was a little Man, a Roman by the Privilege of his Birth, a Man of Virtue or Honesty, and an inspired Apostle; his low Stature is a physical Mode, his being a Roman is a civil Privilege, his Honesty is a moral Consideration, and his being inspired is supernatural.

VII. Modes belong either to Body or to Spirit, or to both. Modes of Body belong only to Matter or to corporeal Beings; and there are Shape, Size, Situation, or Place, &c. Modes of Spirit belong only to Minds; such are Knowledge, Assent, Dissent, Doubting, Reasoning, &c. Modes which belong to both have been sometimes call'd mixt Modes, or buman Modes, for these are only sound in human Nature, which is compounded both of Body and Spirit; such are Sensation, Imagination, Passion, &c. in all which there is a Concurrence of the Operations both of Mind and Body, i. e. of animal and intellectual Nature.

But the Modes of Body may be yet farther diftinguish'd. Some of them are primary Modes or

Note, Agent signifies the Doer, Patient the Sufferer, Action is Doing, Passion is Suffering: Agent and Action have retained their original and philosophical Sense, tho' Patient and Passion have acquired a very different Meaning in common Language.

Qualities, for they belong to Bodies consider'd in themselves, whether there were any Man to take Notice of them or no; fuch are those beforemention'd (viz.) Shape, Size, Situation, &c. Secondary Qualities, or Modes, are such Ideas as we afcribe to Bodies on account of the various Impressions which are made on the Senses of Men by them; and these are called sensible Qualities, which are very numerous; fuch are all Colours, as Red, Green, Blue, &c. fuch are all Sounds, as Sharp, Shrill, Loud, Hoarfe; all Taftes, as Sweet, Bitter, Sour; all Smells, whether Pleasant, Offensive, or Indifferent; and all Tattile Qualities, or fuch as affect the Touch or Feeling, (viz.) Heat, Cold, &c. These are properly called secondary Qualities, for tho' we are ready to conceive them as existing in the very Bodies themselves which affect our Senses, yet true Philosophy has most undeniably proved that all these are really various Ideas or Perceptions excited in human Nature, by the different Impressions that Bodies make upon our Senses by their primary Modes, i. e. by Means of the different Shape, Size, Motion and Position of those little invisible Parts that compose them. Thence it follows that a secondary Quality confidered as in the Bodies themselves, is nothing else but a Power or Aptitude to produce fuch Sensations in us. See Locke's Essay of the Understanding, Book 2. Ch. 8.

VIII. I might add in the last Place, that as Modes belong to Substances, so there are some also that are but Modes of other Modes: For the' they Subsist in and by the Substance, as the original Subject of them, yet they are properly and directly attributed to some Mode of that Substance. Motion is the Mode of a Body; but the Swiftne/s,

ness, or Slowness of it, or its Direction to the North or South, are but Modes of Motion. Walking is the Mode or Manner of Man, or of a Beast; but Walking gracefully implies a Manner or Mode superadded to that Action. All comparative and superlative Degrees of any Quality, are the Modes of a Mode, a Swifter implies a greater Measure of Swiftness.

It would be too tedious here to run thro' all the Modes, Accidents, and Relations at large that belong to various Beings, and are copiously treated of in general, in the Science call'd Metaphy-sicks, or more properly Ontology: They are also treated of in particular in those Sciences which have assumed them severally as their proper Subjects.

SECT. V.

Of the ten Categories. Of Substance modify'd.

W E have thus given an Account of the two chief Objects of our Ideas, (viz.) Substances and Modes, and their various Kinds: And in these last Sections we have briefly compriz'd the greatest part of what is necessary in the famous ten Ranks of Being, called the ten Predicaments or Categories of Aristotle, on which there are endless Volumes of Discourses formed by several of his Followers. But that the Reader may not utterly be ignorant of them, let him know the Names are these: Substance, Quantity, Quality, Relation, Action, Passion, Where, When, Situation and Cloathing. It would be mere Loss of Time to shew how loose, how injudicious, and even ridiculous, is this ten-fold Division of Things: And whatfoever farther relates to them, and which may

may tend to improve useful Knowledge, should be sought in Ontology, and in other Sciences.

Besides Substance and Mode, some of the Moderns would have us consider the Substance modified, as a distinct Object of our Ideas; but I think there is nothing more that need be said on this Subject, than this, (viz.) There is some Difference between a Substance when it is considered with all its Modes about it, or cloath'd in all its Manners of Existence, and when it is distinguish'd from them, and consider'd naked without them.

SECT. VI. Of Not-Being.

A S Being is divided into Substance and Mode, fo we may consider Not-Being with Regard to both these.

I. Not-Being is confidered as excluding all Subftance, and then all Modes are also necessarily excluded, and this we call pure Nibility, or mere

Nothing.

This Nothing is taken either in a vulgar or a philosophical Sense; so we say there is nothing in the Cup, in a vulgar Sense, when we mean there is no Liquor in it; but we cannot say there is nothing in the Cup, in a strict philosophical Sense, while there is Air in it, and perhaps a Million of Rays of Light are there.

II. Not-Being, as it has relation to Modes or Manners of Being, may be confider'd either as a

mere Negation, or as a Privation.

A Negation is the Absence of that which does not naturally belong to the Thing we are speaking of, or which has no Right, Obligation, or Necessity to be present with it; as when we say a Stone

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a Stone is Inanimate, or Blind, or Deaf, i. e. it has no Life, nor Sight, or Hearing; or when we fay a Carpenter or a Fisherman is unlearned; these

are mere Negations.

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But a Privation is the Absence of what does naturally belong to the Thing we are speaking of, or which ought to be present with it, as when a Man or a Horse is deaf, or blind, or dead, or if a Physician or a Divine be unlearned, these are called Privations: So the Sinfulness of any buman Action is said to be a Privation; for Sin is that want of Conformity to the Law of God, which ought to be found in every Action of Man.

Note, There are some Writers who make all fort of relative Modes or Relations, as well as all external Denominations to be mere Creatures of the Mind, and entia Rationis, and then they rank them also under the general Head of Not-Beings; but it is my Opinion, that whatfoever may be determined concerning mere mental Relations and external Denominations which feem to have fomething less of Entity or Being in them, yet there are many real Relations, which ought not to be reduc'd to fo low a Class; such are the Situation of Bodies, their mutual Distances, their particuar Proportions and Measures, the Notions of Fatherhood, Brotherhood, Sonship, &c. all which are relative Ideas. The very Essence of Virtue or Holiness consists in the Conformity of our Actions to the Rule of Right Reason, or the Law of God: The Nature and Essence of Sincerity is the Conformity of our Words and Actions to bur Thoughts, all which are but mere Relations; and I think we must not reduce such positive Beings as Piety, and Virtue, and Truth, to the Rank of Non-Entities, which have nothing real in them, ho' Sin (or rather the Sinfulness of an Action)

may be properly call'd a Not-Being, for it is a want of Piety and Virtue. This is the most usual and perhaps the justest Way of representing these Matters.

CHAP. III.

Of the several Sorts of Perceptions or Ideas.

IDEAS may be divided with Regard to their Original, their Nature, their Objects and their Qualities.

SECT. I.

Of sensible, spiritual, and abstracted Ideas.

THERE has been a great Controversy, about the Origin of Ideas, (viz.) whether any of our Ideas are innate or no, i. e. born with us, and naturally belonging to our Minds. Mr. Locke utterly denies it; others as positively affirm it. Now, though this Controversy may be compromised, by allowing that there is a Sense, wherein our first Ideas of some Things may be said to be innate, (as I have shewn in some Remarks on Mr. Locke's Essay, which have lain long by me) yet it does not belong to this Place and Business to have that Point debated at large, nor will it hinder our Pursuit of the present Work to pass it over in Silence.

There is sufficient Ground to say, that all our Ideas, with Regard to their Original, may be divided into three sorts (viz.) sensible, spiritual, and abstracted Ideas.

I. Sensible or corporeal Ideas are deriv'd originally from our Senses, and from the Communication

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which the Soul has with the animal Body in this present State; such are the Notions we frame of all Colours, Sounds, Tastes, Figures, or Shapes and Motions; for our Senses being conversant about particular sensible Objects become the Occasions of several distinct Perceptions in the Mind; and thus we come by the Ideas of Yellow, White, Heat; Cold, Soft, Hard, Bitter, Sweet, and all those which we call sensible Qualities. All the Ideas which we have of Body, and the feveral Modes and Properties that belong to it, feem to be derived from Sensation.

And howfoever these may be treasured up in the Memory, and by the Work of Fancy may be increased, diminished, compounded, divided, and diversified, (which we are ready to call our Invention) yet they all derive their first Nature and Being from something that has been let into our Minds by one or other of our Senses. If I think of a golden Mountain, or a Sea of liquid Fire, yet the fingle Ideas of Sea, Fire, Mountain and Gold came into my Thoughts at first by Sensation; the Mind has only compounded them.

II.* Spiritual or intellectual Ideas are those which we gain by reflecting on the Nature and Actions of our own Souls, and turning our Thoughts within our felves, and observing what is transacted in our own Minds. Such are the Ideas we have of Thought, Assent, Dissent, Judging, Reason, Knowledge, Understanding, Will, Love, Fear,

Hope.

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By Sensation the Soul contemplates Things (as it were) out of itself, and gains corporeal Reprelentations or sensible Ideas: By Reflection the Soul contemplates itself, and Things within itself, and

^{*} Note, Here the Word Spiritual is used in a mere natural, and not in a religious Sense.

by this Means it gains spiritual Ideas, or Repre-

sentations of Things intellectual.

Here it may be noted, tho' the first Original of these two Sorts of Ideas, (viz.) Sensible and Spiritual, may be entirely owing to these two Principles, Sensation and Reflection, vet the Recollection and fresh Excitation of them may be owing to a thousand other Occasions and Occurrences of Life. We could never inform a Man who was born Blind or Deaf, what we mean by the Words Yellow, Blue, Red, or by the Words Loud or Shrill, nor convey any just Ideas of these Things to his Mind, by all the Powers of Language, unless he has experienced those Sensations of Sound and Colour; nor could we ever gain the Ideas of Thought, Judgment, Reason, Doubting, Hoping, &c. by all the Words that Man could invent, without turning our Thoughts inward upon the Actions of our own Souls. when once we have attained these Ideas by Sensation and Reflection, they may be excited afresh by the Use of Names, Words, Signs, or by any Thing elfe that has been connected with them in our Thoughts; for when two or more Ideas have been affociated together, whether it be by Cuftom, or Accident, or Defign, the one prefently brings the other to Mind.

there is a third fort of Ideas, which are commonly called abstracted Ideas, because the the original Ground or Occasion of them may be Sensation, or Reflection, or both, yet these Ideas are framed by another Act of the Mind which we usually call Abstraction. Now the Word Abstraction signifies a withdrawing some Parts of an Idea from other Parts of it, by which Means such abstracted Ideas are formed, as neither represent any Thing corpo-

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real or spiritual, i. e. any thing peculiar or proper to Mind or Body. Now these are of two kinds.

Some of these abstracted Ideas are the most absolute, general and universal Conceptions of Things
considered in themselves, without Respect to
others, such as Entity or Being, and Not-being,
Essence, Existence, Act, Power, Substance, Mode,
Accident, &c.

The other fort of abstracted Ideas is relative, as when we compare several Things together, and consider merely the Relations of one Thing to another, entirely dropping the Subjects of those Relations, whether they be corporeal or spiritual; such are our Ideas of Cause, Effect, Likeness, Unlikeness, Subject, Object, Identity, or Sameness, and

Contrariety, Order, and other Things which are treated of in Ontology.

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Most of the Terms of Art in several Sciences may be ranked under this Head of abstracted Ideas, as Noun, Pronoun, Verb, in Grammar, and the several Particles of Speech, as wherefore, therefore, when, how, altho', howsoever, &c. So Connections, Transitions, Similitudes, Tropes, and their

various Forms in Rhetorick.

These abstracted Ideas, whether absolute or relative, cannot so properly be said to derive their immediate, compleat and distinct Original, either from Sensation or Reslection, (1.) Because the Nature and the Actions both of Body and Spirit give us Occasion to frame exactly the same Ideas of Essence, Mode, Cause, Esset, Likeness, Contra-riety, &c. Therefore these cannot be called either sensible or spiritual Ideas, for they are not exact Representations either of the peculiar Qualities or Actions of Spirit or Body, but seem to be a distinct kind of Idea fram'd in the Mind, to represent our most general Conceptions of Things or their C2

Relations to one another, without any Regard to their Natures, whether they be corporeal or spiritual. And (2.) the same general Ideas, of Cause and Effect, Likeness, &c. may be transferr'd to a thousand other kinds of Being, whether bodily or spiritual, besides those from whence we first derived them: Even those abstracted Ideas, which might be first occasion'd by Bodies, may be as

properly afterward attributed to Spirits.

Now, though Mr. Locke supposes Sensation and Reflection to be the two only Springs of all Ideas; and that these two are sufficient to furnish our Minds with all that rich Variety of Ideas which we have; yet Abstraction is certainly a different Act of the Mind, whence these abstracted Ideas have their Original; tho' perhaps Sensation or Reflection may furnish us with all the first Objects and Occasions whence these abstracted Ideas are excited and deriv'd. Nor in this Sense and View of Things can I think Mr. Locke himself would deny my Representation of the Original of abstracted Ideas, nor forbid them to stand for a distinct Species.

Note, Tho' we have divided Ideas in this Chapter into three Sorts (viz.) fensible, spiritual, and abstracted, yet it may not be amis just to take notice here, that as Man may be called a compound Substance, being made up of Body and Mind, and the Modes which arise from this Composition are called mixed Modes, such as Sensation, Passion, Discourse, &c. So the Ideas of this Substance or Being called Man, and of these mixed Modes, may be called mixt Ideas, for they are not properly and strictly spiritual, sensible or abstratted. See a much larger Account of every Part of this Chapter in the Philosophical Essays,

by I. W. Est. 3, 4, &c.

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SECT. II.

Of simple and complex, compound and collective Ideas.

I DEAS considered in their Nature, are either simple or complex.

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A simple Idea is one uniform Idea which cannot be divided or distinguished by the Mind of Man into two or more Ideas; fuch are a Multitude of our Sensations, as the Idea of Sweet, Bitter, Cold, Heat, White, Red, Blue, Hard. Soft, Motion, Rest, and perhaps Extension and Duration: Such are also many of our spiritual Ideas; such as Thought, Will, Wish, Knowledge, &c.

A complex Idea is made by joining two or more fimple Ideas together; as a Square, a Triangle, a Cube, a Pen, a Table, Reading, Writing, Truth, Falshood, a Body, a Man, a Horse, an Angel, a beavy Body, a swift Horse, &c. Every Thing that can be divided by the Mind into two or more

Ideas is called complex.

Complex Ideas are often confidered as fingle and distinct Beings, tho' they may be made up of several simple Ideas; so a Body, a Spirit, a House, a Tree, a Flower. But when several of these Ideas of a different Kind are join'd together, which are wont to be confider'd as diffinct fingle Beings. this is called a compounded Idea, whether thefe united Ideas be simple or complex. So a Man is compounded of Body and Spirit, so Mithridate is a compound Medicine, because it is made of many different Ingredients: This I have shewn under And Modes also may the Doctrine of Substances. be compounded; Harmony is a compound Idea. made up of different Sounds united; so several different Virtues must be united to make up the compounded

compounded Idea or Character, either of a Hero, or a Saint.

But when many Ideas of the same Kind are joined together and united in one Name, or under one View, it is called a collective Idea; fo an Army, or a Parliament, is a Collection of Men; a Distionary or Nomenclatura is a Collection of Words; a Flock is a Collection of Sheep; a Forest, or Grove, a Collection of Trees; a Heap is a Collection of Sand, or Corn, or Dust, &c. a City is a Collection of Houses; a Nosegay is a Collection of Flowers; a Month, or a Year, is a Collection of Days, and a Thousand is a Collection of Units.

The precise Difference between a compound and collective Idea is this, that a compound Idea unites Things of a different Kind, but a collective Idea Things of the fame Kind: tho' this Distinction in some Cases is not accurately observ'd, and Custom oftentimes uses the Word compound for collective.

SECT. III.

Of universal and particular Ideas, real and imaginary.

DEAS, according to their Objects, may first be divided into particular or universal.

A particular Idea is that which represents one

Thing only.

Sometimes the one Thing is represented in a loofe and indeterminate manner, as when we fay some Man, any Man, one Man, another Man; some Horse, any Horse; one City, or another, which is called by the Schools Individuum Vagum.

Sometimes the particular Idea represents one Thing in a determinate Manner, and then it is called called a fingular Idea; fuch is Bucephalus or Alexander's Horse, Cicero the Orator, Peter the Apostile, the Palace of Versailles, this Book, that River, the new Forest, or the City of London: That Idea which represents one particular determinate Thing to me is called a fingular Idea, whether it be simple, or complex, or compound.

The Object of any particular Idea, as well as the Idea itself, is sometimes called an Individual: So Peter is an individual Man, London is an individual City. So this Book, one Horse, another Horse, are all Individuals; tho' the Word Individual is more usually limited to one singular, certain, and

determined Object.

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An universal Idea is that which represents a common Nature agreeing to several particular Things; so a Horse, a Man, or a Book, are called universal Ideas, because they agree to all Horses,

Men, or Books.

And I think it is not amiss to intimate, in this Place, that these universal Ideas, are formed by that Act of the Mind which is called Abstraction. i. e. a withdrawing some part of an Idea from other Parts of it: For when singular Ideas are first let into the Mind by Sensation or Resection, then, in order to make them universal, we leave out, or drop, all those peculiar and determinate Characters, Qualities, Modes, or Circumstances, which belong merely to any particular individual Being, and by which it differs from other Beings; and we only contemplate those Properties of it, wherein it agrees with other Beings.

Tho' it must confessed, that the Name of abstracted Ideas is sometimes attributed to univer-sal Ideas, both sensible or spiritual, yet this Abstraction is not so great; as when we drop out of our Idea every sensible or spiritual Representation,

and retain nothing but the most general and abfolute Conceptions of Things, or their mere Relations to one another, without any Regard to their
particular Natures, whether they be fensible or
spiritual. And it is to this Kind of Conceptions
we more properly give the Name of abstracted Ideas
as in the first Section of this Chapter.

An universal Idea is either general or special.

A general Idea is called by the Schools a Genus; and it is one common Nature agreeing to several other common Natures. So Animal is a Genus, because it agrees to Horse, Lion, Whale, Buttersty, which are also common Ideas; so Fish is a Genus, because it agrees to Trout, Herring, Crab, which are common Natures also.

A special Idea is called by the Schools a Species; it is one common Nature that agrees to several singular individual Beings; so Horse is a special Idea, or a Species, because it agrees to Bucephalus, Trott and Snow-ball. City is a special Idea, for it

agrees to London, Paris, Bristol.

Note, Ist, Some of these Universals are Genus's, if compared with less common Natures; and they are Species's, if compar'd with Nature's more common. So Bird is a Genus, if compared with Eagle, Sparrow, Raven, which are also common Natures: But it is a Species, if compared with the more general Nature, Animal. The same may be said of Fish, Beast, &c.

This fort of universal Ideas, which may either be considered as a Genus, or a Species, is called Subaltern: But the highest Genus, which is never a Species, is call'd the most general; and the lowest Species, which is never a Genus, is call'd the

most special.

It may be observed here also, that that general Nature or Property wherein one thing agrees with most r

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most other things is called its more remote Genus: So Substance is the remote Genus of Bird, or Beast, because it agrees not only to all kinds of Animals, but also to things inanimate, as Sun, Stars, Clouds, Metals, Stones, Air, Water, &c. But Animal is the proximate or nearest Genus of Bird, because it agrees to sewest other things. Those general Natures which stand between the nearest and most remote are called Intermediate.

Note, IIdly, In univerfal Ideas it is proper to confider their Comprehension and their Extension*.

The Comprehension of an Idea regards all the effential Modes and Properties of it: So Body in its Comprehension takes in Solidity, Figure, Quantity, Mobility, &c. So a Bowl in its Comprehension takes in Solidity, Figure, Quantity, Mobility, &c.

fion includes Roundness, Volubility, &c.

The Extension of an universal Idea regards all the particular Kinds and single Beings that are contained under it. So a Body in its Extension includes Sun, Moon, Star, Wood, Iron, Plant, Animal, &c. which are several Species, or Individuals, under the general Name of Body. So a Bowl, in its Extension, includes a wooden Bowl, a brass Bowl, a white and black Bowl, a heavy Bowl, &c. and all kinds of Bowls, together with all the particular individual Bowls in the World.

Note, The Comprehension of an Idea is sometimes taken in so large a Sense, as not only to include the effential Attributes, but all the Properties, Modes, and Relations whatsoever, that belong to

any Being, as will appear Chap. VI.

This Account of Genus and Species is part of that famous Doctrine of Universals, which is taught in the Schools, with divers other Formalities belonging to it; for it is in this Place that they in-

^{*} Note, The Word Extension here is taken in a mere logical Sense, and not in a physical and mathematical Sense.

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Mode, and *Property* or the fecondary effential Mode, and *Accident* or the accidental Mode; and these they call the five *Predicables*, because every Thing that is affirm'd concerning any Being, must be either the *Genus*, the *Species*, the *Difference*, some *Property*, or some *Accident*: But what farther is necessary to be said concerning these Things, will be mentioned when we treat of *Definition*.

Having finish'd the Doctrine of universal and particular Ideas, I should take notice of another Division of them, which also hath Respect to their Objects; and that is, they are either real or

imaginary.

Real Ideas are such as have a just Foundation in Nature, and have real Objects, or Exemplars, which did, or do, or may actually exist, according to the present State and Nature of Things; such are all our Ideas of Long, Broad, Swift, Slow, Wood, Iron, Men, Horses, Thoughts, Spirits, a cruel Master, a proud Beggar, a Man seven Foot high.

Imaginary Ideas, which are also called fantastical, or chimerical, are such as are made by englarging, diminishing, uniting, dividing real Ideas in the Mind, in such a manner, as no Objects, or Exemplars, did or will ever exist, according to the present Course of Nature, tho' the several Parts of these Ideas are borrowed from real Objects; such are the Conceptions we have of a Centaur, a Satyr, a golden Mountain, a slying Horse, a Dog without a Head, a Bull less than a Mouse, or a Mouse as Big as a Bull, and a Man twenty Foot high.

Some of these fantastic Ideas are possible, that is, they are not utterly inconsistent in the Nature of Things; and therefore it is within the Reach of Divine Power to make such Objects; such are most of the Instances already given: But Impossibles

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carry an utter Inconsistence in the Ideas which are join'd; such are self-active Matter, and infinite or eternal Men, a pious Man without Honesty, or Heaven without Holiness.

SECT. IV.

The Division of Ideas, with Regard to their Qualities.

IDEAS, with Regard to their Qualities, afford us these several Divisions of them. 1. They are either clear and distinct, or obscure and consused.

2. They are vulgar or learned.

3. They are perfect or impersect.

4. They are true or false.

I. Our Ideas are either clear and distinct, or ob-

scure and confused.

Several Writers have distinguished the clear Ideas from those that are distinct; and the confused Ideas from those that are obscure; and it must be acknowledg'd there may be some Difference between them; for it is the Clearness of Ideas for the most part makes them distinct; and the Obfeurity of Ideas is one Thing that will always bring a fort of Confusion into them. Yet when these Writers come to talk largely upon this Subject, and to explain and adjust their Meaning with great Nicety, I have generally found that they did not keep up the Distinction they first defign'd, but they confound the one with the other. I shall therefore treat of clear or distinct Ideas, as one and the same fort, and obscure or confused Ideas, as another.

A clear and distinct Idea is that which represents the Object to the Mind with full Evidence and Strength, and plainly distinguishes it from all

other Objects whatfoever.

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An obscure and confused Idea represents the Obiect either fo faintly, fo imperfectly, or fo mingled with other Ideas, that the Object of it doth not appear plain to the Mind, nor purely in its own Nature, nor sufficiently distinguished from

other Things.

When we see the Sea and Sky nearer at Hand, we have a clear and distinct Idea of each; but when we look far toward the Horizon, especially in a misty Day, our Ideas of both are but obscure and confused; for we know not which is Sea and which is Sky. So when we look at the Colours of the Rainbow, we have a clear Idea of the red. the blue, the green in the Middle of their feveral Arches, and a distinct Idea too, while the Eye fixes there; but when we confider the Border of those Colours, they so run into one another that renders their Ideas confused and obscure. So the Idea which we have of our Brother, or our Friend, whom we fee daily, is clear and distinct; but when the Absence of many Years has injured the Idea, it becomes obscure and confused.

Note, here, that some of our Ideas may be very clear and distinct in one Respect, and very sobscure and confused in another. So when we speak of a Chiliagonum, or a Figure of a thousand Angles, we may have a clear and distinct rational Idea of the Number one thousand Angles, for we can demonstrate various Properties concerning it by Reason: But the Image, or sensible Idea, which we have of the Figure, is but confused and obscure; for we cannot precisely distinguish it by Fancy from the Image of a Figure that has nine hundred Angles, or nine bundred and ninety. So when we speak of the infinite Divisibility of Matter, we always keep in our Minds a very clear and distinct Idea of Divifion and Divisibility: But after we have made a

little Progress in dividing, and come to Parts that are far too small for the Reach of our Senses, then our *Ideas*, or *sensible Images* of these little Bodies, become obscure and indistinct, and the Idea of Infinite is very obscure, impersect and confused.

II. Ideas are either vulgar or learned. A vulgar Idea represents to us the most obvious and sensible Appearances that are contained in the Object of them: But a learned Idea penetrates farther into the Nature, Properties, Reasons, Causes and Effects of Things. This is best illustrated by some

Examples.

It is a vulgar Idea that we have of a Rainbow when we conceive a large Arch in the Clouds, made up of various Colours parallel to each other: But it is a learned Idea which a Philosopher has when he confiders it as the various Reflections and Refractions of Sun-Beams, in Drops of falling Rain. So it is a vulgar Idea which we have of the Colours of folid Bodies, when we perceive them to be, as it were, a red, or blue, or green Tincture of the Surface of those Bodies: But it is a philosopbical Idea when we consider the various Colours to be nothing else but different Sensations excited in us by the variously refracted Rays of Light, reflected on our Eyes in a different Manner, according to the different Size, or Shape, or Situation of the Particles of which the Surfaces of those Bodies are composed. It is a vulgar Idea which we have of a Watch or Clock, when we conceive of it as a pretty Instrument, made to shew us the Hour of the Day: But it is a learned Idea which the Watchmaker has of it, who knows all the feveral Parts of it, the Spring, the Balance, the Chain, the Wheels, their Axles, &c. together with the various Connections and Adjust ments

Adjustments of each Part, whence the exact and uniform Motion of the Index is derived, which points to the Minute or the Hour. So when a common Understanding reads Virgil's Eneid, he has but a vulgar Idea of that Poem, yet his Mind is naturally entertained with the Story, and his Ears with the Verse: But when a Critick or a Man who has Skill in Poesy, reads it, he has a learned Idea of its peculiar Beauties, he tastes and relishes a superior Pleasure; he admires the Roman Poet, and wishes he had known the Christian Theology, which would have surnish'd him with nobler Materials and Machines than all the Heathen Idols.

It is with a vulgar Idea that the World beholds the Cartoons of Raphael at Hampton-Court, and every one feels his Share of Pleasure and Entertainment: But a Painter contemplates the Wonders of that Italian Pencil, and sees a thousand Beauties in them which the vulgar Eye neglected: His learned Ideas give him a transcendent Delight, and yet, at the same Time discover the Blemishes which the common Gazer never observed.

III. Ideas are either perfett or imperfett, which

are otherwise called adequate or inadequate.

Those are adequate Ideas which perfectly reprefent their Archetypes or Objects. Inadequate Ideas are but a partial, or incomplete Representation of those Archetypes to which they are referr'd.

All our fimple Ideas are in some Sense adequate or perfect, because simple Ideas, consider'd merely as our first Perceptions, have no Parts in them: So we may be said to have a perfect Idea of White, Black, Sweet, Sour, Length, Light, Motion, Rest, &c. We have also a perfect Idea of various Figures, as a Triangle, a Square, a Cylinder,

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der, a Cube, a Sphere, which are complex Ideas: But our Idea or Image of a Figure of a thousand Sides, our Idea of the City of London, or the Powers of a Loadstone, are very imperfect, as well as all our Ideas of infinite Length or Breadth, infinite Power, Wisdom or Duration; for the Idea of infinite is endless and ever growing, and can never be compleated.

Note, 1. When we have a perfect Idea of any thing in all its Parts, it is call'd a complete Idea; when in all its Properties, it is called comprehensive. But when we have but an inadequate and imperfect dea, we are only said to apprehend it; therefore we use the Term Apprehension, when we speak of our Knowledge of God, who can never be com-

prehended by his Creatures.

Note, 2. Tho' there are a Multitude of Ideas vhich may be call'd perfect, or adequate in a vulgar ense, yet there are scarce any Ideas which are adeuate, comprehensive and complete in a philosophical ense; for there is scarce any thing in the World hat we know, as to all the Parts and Powers, and Properties of it in Perfection. Even so plain an dea as that of a Triangle, has perhaps, infinite Properties belonging to it, of which we know but few. Who can tell what are the Shapes and Potions of those Particles, which cause all the Vaiety of Colours that appear on the Surface of Things? Who knows what are the Figures of the ttle Corpuscles that compose and distinguish diferent Bodies? The Ideas of Brass, Iron, Gold, Yood, Stone, Hyssop, and Rosemary have an infiite Variety of hidden Mysteries contained in the hape, Size, Motion and Position of the little Parcles, of which they are composed; and, perhaps, Iso infinite unknown Properties and Powers, that hay be deriv'd from them. And if we arise to

the Animal World, or the World of Spirits, our Knowledge of them must be amazingly imperfect, when there is not the least Grain of Sand, or empty Space, but has too many Questions and Difficulties belonging to it for the wisest Philosopher upon

Earth to answer and resolve.

IV. Our Ideas are either true or false; for an Ide being the Representation of a thing in the Mind it must be either a true or a falle Representation of If the Idea be conformable to the Object of Archetype of it, it is a true Idea; if not, it is Sometimes our Ideas are referr'd u false one. things really existing without us as their Archetype If I see Bodies in their proper Colours I have a in Idea: But when a Man under the Jaundice fees a Bodies yellow, he has a false Idea of them. we see the Sun or Moon, rising or sitting, our Ide represents them bigger than when they are on the Meridian: And in this Sense it is a false Idea, be cause those heavenly Bodies are all Day, and a Night of the same Bigness. Or when I see a stra Staff appear crooked while it is half under the Water I fay, the Water gives me a false Idea of it. Some times our Ideas refer to the Ideas of other Men de noted by fuch a particular Word, as their Arch types: So when I hear a Protestant use the Word Church and Sacraments; if I understond by the Words, a Congregation of faithful Men who profi Christianity, and the two Ordinances, Baptism as the Lord's Supper, I have a true Idea of the Words in the common Sense of Protestants: But the Man who speaks of them be a Papist, he mean the Church of Rome and the seven Sacraments, an then I have a mistaken Idea of those Words, as spo ken by him, for he has a different Sense and Mean ing: And in general whenfoever I mistake the Sen of any Speaker or Writer, I may be faid to har afalse Idea of it. Som

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Some think that Truth, or Falshood properly belongs only to Propositions, which shall be the Subject of Discourse in the second Part of Logic; for if we consider Ideas as mere Impressions upon the Mind, made by outward Objects, those Impresfions will ever be conformable to the Laws of Nature in fuch a Case: The Water will make a Stick appear crooked, and the borizontal Air will make the Sun and Moon appear bigger. And generally where there is Falshood in Ideas, there feems to be some secret or latent Proposition, whereby we judge falfly of Things: This is more obvious where we take up the Words of a Writer or Speaker in a mistaken Sense, for we join his Words to our own Ideas, which are different from his. But after all, since Ideas are Pictures of Things, it can never be very improper to pronounce them to be true or false, according to their Conformity or Nonformity to their Exemplars.

CHAP. IV.

Of Words and their several Divisions, together with the Advantage and Danger of them.

SECT. I.

Of Words in general, and their Use.

THO' our Ideas are first acquired by the Perception of Objects, or by various Sensations and Reflections, yet we convey them to each other by the Means of certain Sounds, or written Marks, which we call Words; and a great Part of our Knowledge is both obtained and communicated by hese Means, which are call'd Speech or Language. Bug

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But as we are led into the Knowledge of things by Words, so we are oftentimes led into Error, or Mistake, by the Use or Abuse of Words also. And in order to guard against such Mistakes, as well as to promote our Improvement in Know. ledge, it is necessary to acquaint ourselves a little

with Words and Terms. We shall begin with these Observations.

Observ. 1. Words (whether they are spoken or written) have no natural Connection with the Ideas they are defign'd to fignify, nor with the things which are represented in those Ideas. There is no manner of Affinity between the Sound white in English, or blane in French, and that Co. lour which we call by that Name; nor have the Letters, of which these Words are composed. any natural Aptness to fignify that Colour rather than red or green. Words and Names therefore are mere arbitary Signs invented by Men to communicate their Thoughts, or Ideas, to one another.

Observ. 2. If one single Word were appointed to express but one simple. Idea, and nothing else as White, Black, Sweet, Sour, Sharp, Bitter, Ex tension, Duration, there would be scarce any Mis-

take about them.

But alas! It is a common Unhappiness in Landu guage, that different simple Ideas are sometime Tea express'd by the same Word; so the Words sweet this and sharp, are applied both to the Objects of hear ie ing and tafting, as we shall see hereafter; and a g this, perhaps, may be one Cause or Foundation of this Obscurity and Error arising from Words.

Observ. 3. In communicating our Comple be Ideas to one another, if we could join as man Pro peculiar and appropriated Words together in on hard Sound, as we join simple Ideas to make one com of s ple

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lex one, we should seldom be in Danger of misaking: When I express the Taste of an Apple, which we call the Bitter-Sweet, none can mistake what I mean.

Yet this fort of Composition would make all Language a most tedious and unweildy thing, fince most of our Ideas are complex, and many of them have eight or ten simple Ideas in them; fo that the Remedy would be worse than he the Disease; for what is now expressed in one hort Word, as Month, or Year, would require two Lines to express it. It is necessary, therefore, that fingle Words be invented to express complex Ideas, in order to make Language short and useful.

But here is our great Infelicity, that when ingle Words signify complex Ideas, one Word can never distinctly manifest all the Parts of a comto plex Idea, and thereby it will often happen, that one Man includes more or less in his Idea, than another does, while he affixes the same Word to . In this Case there will be Danger of Mistake between them, for they do not mean the Ime Object, tho' they use the same Name. So if one Person, or Nation, by the Word Year mean twelve Months of thirty Days each, i. e. three undred and fixty Days, another intend a Solar Fear of three hundred fixty five Days, and a third mean a Lunar Year, or twelve Lunar Months, at I e. three hundred fifty four Days, there will be a great Variation and Error in their Account of things, unless they are well appriz'd of each other's meaning beforehand. This is suppos'd to be the Reason, why some ancient Histories, and Prophecies, and Accounts of Chronology are fo lard to be adjusted. And this is the true Reason of so furious and endless Debates on many Points D 3 in

in Divinity; the Words Church, Worship, Idolatry, Repentance, Faith, Election, Merit, Grace, and many others which signify very complex Ideas, are not applied to include just the same simple Ideas, and the same Number of them, by the various contending Parties; thence arise Confusion and Contest.

Observ. 4. Tho' a single Name does not certainly manifest to us all the Parts of a complex Idea, yet it must be acknowledg'd, that in many of our camplex Ideas, the single Name may Point out to us some chief Property which belongs to the thing that the Word signifies; especially when the Word, or Name is trac'd up to its Original thro' several Languages from whence it is borrowed. So an Apostle signifies one who is sent forth.

But this tracing of a Word to its Original (which is call'd Etymology) is sometimes a very precarious and uncertain Thing: And after all, we have made but little Progress towards the Attainment of the sull Meaning of a complex Idea, by knowing some one chief Property of it We know but a small Part of the Notion of an Apostle, by knowing barely that he is sen

forth.

Observ. 5. Many (if not most) of our Words which are applied to moral and intellectual Ideas, when traced up to their Original in the learned Languages, will be found to signify sensible and corporeal Things: Thus the Words Apprehension, Understanding, Abstraction, Invention, Idea, Inference, Prudence, Religion, Church, Adoration, Sc. have all a corporeal Signification in their Original. The Name Spirit itself signifies Breath or Air, in Latin, Greek, and Hebrew: Such is the Poverty of all Languages, they are forc'd to

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ife thefe Names for incorporeal Ideas, which thing

has a tendency to Error and Confusion.

Objects that one Name fometimes fignifies: There is almost an infinite Variety of things and ideas both simple and complex, beyond all the Words that are invented in any Language; thence t becomes almost necessary that one Name should fignify several things. Let us but consider the wo Colours of Tellow and Blue, if they are minged together in any considerable Proportion they nake a Green: Now there may be infinite Disserted and Blue; and yet we have only these three Words, Tellow, Blue, and Green, to signify all of them, at least by one single Term.

When I use the Word Shore, I may intend hereby a Coast of Land near the Sea, or a Drain o carry off Water, or a Prop to support a Building; and by the Sound of the Word Porter, who can ell whether I mean a Man who bears Burthens, or servant who waits at a Nobleman's Gate? The World is fruitful in the Invention of Utensils of Life, and new Characters and Offices of Men, yet Names entirely new are seldom invented; therefore old Names are almost necessarily us'd to signify new things, which may occasion much Confusion and Error in the receiving and communi-

cating of Knowledge.

Give me leave to propose one single Instance, wherein all these Notes shall be remarkably exemplified. It is the Word Bishop, which in French is call'd Eveque; upon which I would make these several Observations. (1.) That there is no natural Connection between the sacred Office hereby signified, and the Letters of Sound

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which fignify this Office; for both these Words Eveque and Bishop fignify the same Office, tho there is not one Letter alike in them; nor have the Letters which compose the English or the French Word any thing facred belonging to them, more than the Letters that compose the Words King or Soldier. (2.) If the meaning of a Word could be learnt by its Derivation or Etymology, vet the original Derivation of Words is oftentimes very dark and unfearchable; for who would imagine that each of these Words are derived from the Latin Episcopus, or the Greek 'Ensono! Yet in this Instance we happen to know certainly the true Derivation; the French being anciently writ Evesque, is borrow'd from the first Part of the Latin Word; and the old English Biscop from the middle of it. (3.) The original Greek Word fignifies an Overlooker, or one who stands higher than his Fellows and overlooks them: It is a compound Word, that primarily fignifies sensible Ideas, translated to fignify or include feveral moral or intellectual Ideas; therefore all will grant, that the Nature of the Office can never be known by the mere Sound or Sense of the Word Overlooker. (4) I add farther, the Word Bishop, or Episcopus, even when it is thus translated from a sensible Idea, to include several intellectual Ideas, may yet equally fignify an Overseer of the Poor; an Inspector of the Customs; a Surveyor of the Highways; a Supervisor of the Excise, &c. but by the Consent of Men, and the Language of Scripture, it is appropriated to fignify a facred Office in the Church. (5.) This very Idea and Name, thus translated from things sensible, to signify a spiritual and sacred thing, contains but one Property of it, (viz.) one that has an Overfight, or Care over others: But it does not tell us, whether it includes a Care

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a Care over one Church, or many; over the Laity, or the Clergy. (6.) Thence it follows, that those who in the complex Idea of the Word Bishop include an Overfight over the Clergy, or over a whole Diocese of People, a Superiority to Presbyters, a distinct Power of Ordination, &c. must necessarily disagree with those who include in it only the Care of a fingle Congregation. Thus according to the various Opinions of Men, this Word fignifies a Pope, a Gallican Bishop, a Lutheran Superintendent, an English Prelate, a Pastor of a fingle Assembly, or a Presbyter or Elder. Thus they quarrel with each other perpetually; and it is well if any of them all have hit precisely the Sense of the facred Writers, and included just the same Ideas in it, and no others.

I might make all the same Remarks on the Word Church or Kirk, which is derived from Kuess of the for the House of the Lord, contracted into Kyrioik, which some suppose to signify an Assembly of Christians, some take it for all the World that professes Christianity, and some make it to mean only the Clergy: and on these Accounts it has been the Occasion of as many and as surious Controversies as the Word Bishop which was mentioned before.

SECT. II.

Of negative and positive Terms.

ROM these and other Considerations it will follow, that if we would avoid Error in our Pursuit of Knowledge, we must take good heed to the Use of Words and Terms, and be acquainted with the various Kinds of them.

I. Terms are either positive or negative.

Negative

Negative Terms are fuch as have a little Word or Syllable of denying join'd to them, according to the various Idioms of every Language, as Unpleasant, Imprudent, Immortal, Irregular, Ignorant, Infinite, Endless, Lifeless, Deathless, Nonsense, Abyss, Anonymous, where the Prepositions Un, Im, In, Non, A, An, and the Termination less, signify a Negation, either in English, Latin, or Greek.

Positive Terms are those which have no such negative Appendices belonging to them, as Life,

Death, End, Sense, Mortal.

But so unhappily are our Words and Ideas link'd together, that we can never know which are positive Ideas, and which are negative, by the Word that is used to express them, and that for these Reasons.

made to fignify a negative Idea; as Dead is properly a Thing that is deprived of Life, Blind implies a Negation or Privation of Sight; Deaf a Want of Hearing; Dumb a Denial of Speech.

2^{dly}, There are also some negative Terms, which imply positive Ideas, such as immortal and death-less, which signify ever-living, or a Continuance in Life: Insolent signifies rude and haughty: Indemnify to keep safe; and Insinite perhaps has a positive Idea too, for it is an Idea ever growing; and when it is applied to God it signifies his compleat Persection.

3^{dly}, There are both positive and negative Terms, invented to fignify the same and contrary Ideas; as Unbappy and Miserable, Sinless and Holy, Pure and Undefiled, Impure and Filthy, Unkind and Cruel, Irreligious and Profane, Unsorgiving and Revengeful, &c. and there is a great deal of Beauty and Convenience deriv'd to any Language from this Variety of Expression; the sometimes it a little confounds

confounds our Conceptions of Being and Not-Be-

ing, our positive and negative Ideas.

4thly, I may add also, that there are some Words which are negative in their original Language, but seem positive to an Englishman, because the Negation is unknown; as Abys, a Place without a Bottom; Anodyne, an easing Medicine; Amnesty, an Unremembrance or general Pardon; Anarchy, a State without Government; Anonymous, i.e. nameles; Inept, i.e. not sit; Iniquity, i.e. Unrighteousness; Infant, one that can't speak, (viz.) a Child; Injurious, not doing Justice or Right.

The Way therefore to know whether any Idea be negative or not, is, to confider whether it primarily imply the Absence of any positive Being, or Mode of Being; if it doth, then it is a Negation or negative Idea; otherwise it is a positive one, whether the Word that expresses it be positive or Yet after all, in many Cases this is negative. very hard to determine; as in Amnesty, Infinite, Abys, which are originally negative Terms, but they fignify Pardon, &c. which feem to be Positives. So Darkness, Madness, Clown, are positive Terms, but they imply the Want of Light, the Want of Reason, and the Want of Manners; and perhaps these may be rank'd among the negative Ideas.

Here note, that in the English Tongue two negative Terms are equal to one positive, and signify the same Thing, as, not unbappy, signifies bappy; not immortal, signifies mortal; he is no imprudent Man, i. e. he is a Man of Prudence: But the Sense and Force of the Word in such a negative Way of Expression, seems to be a little diminish'd.

SECT III.

Of simple and complex Terms.

II. TERMS are divided into fimple or complex. A fimple Term is one Word, a complex Term is when more Words are used to signify one Thing.

Some Terms are complex in Words, but not in Sense, such is the second Emperor of Rome; for it excites in our Mind only the Idea of one Man (viz.)

Augustus.

Some Terms are complex in Sense, but not in Words; so when I say an Army, a Forest, I mean a Multitude of Men, or Trees; and almost all our moral Ideas, as well as many of our natural ones, are express'd in this Manner; Religion, Piety, Loyalty, Knavery, Thest, include a Variety of Ideas in each Term.

There are other Terms which are complex both in Words and Sense; so when I say, a sierce Dog, or a pious Man, it excites an Idea, not only of those two Creatures, but of their peculiar Characters also.

Among the Terms that are complex in Sense but not in Words, we may reckon those simple Terms which contain a primary and a secondary Idea in them; as when I hear my Neighbour speak that which is not true, and I say to him this is not true, or this is false, I only convey to him the naked Idea of his Error; this is the primary Idea: But if I say it is a Lye, the Word Lye carries also a secondary Idea in it, for it implies both the Falshood of the Speech, and my Reproach and Censure of the Speaker. On the other hand, If I say it is a Mistake, this carries also a secondary Idea with

it; for it not only refers to the Falshood of his Speech, but it includes my Tenderness and Civility to him at the same Time. Another Instance may be this; when I use the Word Incest, Adultery, and Murder, I convey to another not only the primary Idea of those Actions, but I include also the secondary Idea of their Unlawfulness, and

my Abhorrence of them.

Note, 1st Hence it comes to pass, that among Words which fignify the same principal Ideas, fome are clean and decent, others unclean; fome chaste, others obscene; some are kind, others are affronting and reproachful, because of the secondary Idea which Custom has affix'd to them. And it is the Part of a wife Man, when there is a Neceffity of expressing any evil Actions, to do it either by a Word that has a secondary Idea of Kindness, or Softness; or a Word that carries in it an Idea of Rebuke and Severity, according as the Case requires: So when there is a Necessity of expreffing things unclean or obscene, a wise Man will do it in the most decent Language, to excite as few uncleanly Ideas as possible in the Minds of the Hearers.

Note, 2^d, In Length of Time, and by the Power of Custom, Words sometimes change their primary Ideas, as shall be declared, and sometimes they have chang'd their secondary Ideas, tho' the primary Ideas may remain: So Words that were once chaste, by frequent Use grow obscene and uncleanly; and Words that were once honourable, may in the next Generation grow mean and contemptible. So the Word Dame originally signified a Mistress of a Family, who was a Lady, and it is used still in the English Law to signify a Lady; but in common use now-a-days it represents a Farmer's Wise, or a Mistress of a Family

of the lower Rank in the Country. So those Words of Rabshakeb, Isa. xxxvi. 12. in our Translation, (Eat their own Dung, &c.) were doubtless decent and clean Language, when our Translators wrote them above a hundred Years ago. The Word Dung has maintain'd its old secondary Idea and inosfensive Sense to this Day; but the other Word in that Sentence has by Custom acquired a more uncleanly Idea, and should now rather be chang'd into a more decent Term, and so it should be read in publick, unless it should be thought more proper to omit the Sentence*.

For this Reason it is, that the Jewish Rabbins have supplied other chaste Words in the Margin of the Hebrew Bible, where the Words of the Text, thro' Time and Custom, are degenerated, so as to carry any base and unclean secondary Idea in them; and they read the Word which is in the Margin, which they call Keri, and not that which was written in the Text, which they call

Chetib.

SECT. IV.

Of Words common and proper.

III. WORDS and Names are either common or proper. Common Names are such as stand for universal Ideas, or a whole Rank of Beings, whether general or special. These are call'd Appellatives; so Fish, Bird, Man, City, River, are common Names; and so are Trout, Eel, Lobster, for they all agree to many Individuals, and some of them to many Species: But Cicero, Virgil, Buce-

^{*} So in some Places of the sacred Historians, where it is written, Every ene that pisses against the Wall, we should read Every Male.

phalus, London, Rome, Ætna, the Thames, are proper Names, for each of them agrees only to

one single Being.

Note here first, that a proper Name may become in some Sense common, when it hath been given to several Beings of the same Kind; so Cæsar, which was the proper Name of the first Emperor Julius, became also a common Name to all the sollowing Emperors. And Tea, which was the proper Name of one sort of Indian Leaf, is now-a-days become a common Name for many Insusions of Herbs, or Plants, in Water; as Sage-Tea, Aleboof-Tea, Limon-Tea, &c. So Peter, Thomas, John, William, may be reckon'd common Names also, because they are given to many Persons, unless they are determined to signify a single Person at any particular Time or Place.

Note, in the fecond Place, that a common Name may become proper by Custom, or by the Time, or Place, or Persons that use it; as in Great Britain, when we say the King, we mean our present rightful Sovereign King George, who now reigns; when we speak of the Prince, we intend his Royal Highness George Prince of Wales: If we mention the City when we are near London, we generally mean the City of London; when in a Country Town, we say the Parson or the Esquire, all the Parish knows who are the single Persons intended by it; so when we are speaking of the History of the New Testament, and use the Words Peter, Paul, John, we mean those three

Apostles.

Note in the third Place, that any common Name whatsoever is made proper, by Terms of Particularity added to it, as the common Words Pope, King, Horse, Garden, Book, Knife, &c. are defign'd to signify a singular Idea, when we say

the present Pope; the King of Great Britain; the Horse that won the last Plate at New-Market; the Royal Garden at Kensington; this Book; that Knife, &c.

SECT. V.

Of concrete and abstract Terms.

IV. TYORDS or Terms are divided into ab-

W stratt and concrete.

Abstract Terms signify the Mode or Quality of a Being, without any Regard to the Subject in which it is; as Whiteness, Roundness, Length,

Breadth, Wisdom, Mortality, Life, Death.

Concrete Terms, while they express the Quality, do also either express, or imply, or refer to some Subject to which it belongs; as white, round, long, broad, wise, mortal, living, dead. But these are not always Noun Adjectives in a grammatical Sense; for a Fool, a Knave, a Philosopher, and many other Concretes are Substantives, as well as Knavery, Folly, and Philosophy, which are the abstract Terms that belong to them.

SECT. VI.

Of univocal and equivocal Words.

V. WORDS and Terms are either univocal or equivocal. Univocal Words are such as signify but one Idea, or at least but one fort of Thing; equivocal Words are such as signify two or more different Ideas, or different sorts of Objects. The Words Book, Bible, Fish, House, Elephant, may be called univocal Words; for I know

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know not that they signify any thing else but hose Ideas to which they are generally affixt; out Head is an equivocal Word, for it signifies he Head of a Nail, or a Pin, as well as of an Animal: Nail is an equivocal Word, it is used for he Nail of the Hand or Foot, and for an iron Vail to fasten any thing. Post is equivocal, it is a Piece of Timber, or a swift Messenger. A Church is a religious Assembly, or the large fair Building where they meet; and sometimes the ame Word means a Synod of Bishops or of Presenters, and in some Places it is the Pope and a general Council.

Here let it be noted, that when two or more Vords fignify the same Thing, as Wave and Bilw, Mead and Meadow, they are usually called nonymous Words: But it seems very strange, nat Words which are directly contrary to each ther, should sometimes represent almost the me Ideas; yet thus it is in some sew Instances; valuable, or an invaluable Blessing; a shameful, or a shameless Villain; a thick Skull, or a thin ulled Fellow, a mere Paper Skull; a Man of a rege Conscience, little Conscience, or no Conscience; samous Rascal, or an infamous one: So uncertin a Thing is human Language, whose Fountation and Support is Custom.

As Words fignifying the same Thing are call'd monymous; so equivocal Words, or those which gnify several Things, are called bomonymous, or mbiguous; and when Persons use such ambiguous Vords, with a Design to deceive, it is called

Iguivocation.

Our simple Ideas, and especially the sensible Qualies, surnish us with a great Variety of equivocal or ambiguous Words; for these being the first, and most natural Ideas we have, we borrow some

of their Names, to fignify many other Ideas both simple and complex. The Word Sweet ex. presses the pleasant Perceptions of almost even Sense; Sugar is sweet, but it hath not the same Sweetness as Musick; nor hath Musick the Sweet ness of a Rose; and a sweet Prospect differs from them all: Nor yet have any of these the same Sweetness as Discourse, Council, or Meditation hath: yet the royal Pfalmist faith of a Man, We took sweet Counsel together; and of God, My Medita tion of him shall be sweet. Bitter is also such an equivocal Word; there is bitter Wormwood, then are bitter Words, there are bitter Enemies, and a bitter cold Morning. So there is a Sharpness in Vinegar, and there is a Sharpness in Pain, in Sorrow, and in Reproach; there is a sharp Eye, a sharp Wit, and a sharp Sword: But there is not one of these seven Sharpnesses, the same as ano ther of them, and a sharp East Wind is different from them all.

There are also Verbs, or Words of Action, which are equivocal as well as Nouns, or Name The Words to bear, to take, to come, to get, and fufficient Instances of it; as when we fay, to bear a Burden, to bear Sorrow or Reproach, to bear to Name, to bear a Grudge, to bear Fruit, or to bear from Children; the Word bear is used in very different Senses. And so is the Word get, when we say to get Money, to get in, to get off, to get ready to get a Stomach, and to get a Cold, &c.

There is also a great deal of Ambiguity is a many of the English Particles, as, but, before, be fide, with, without, that, then, there, for, forth above, about, &c. of which Grammars and Die tionaries will fufficiently inform us.

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SECT. VII.

Various Kinds of equivocal Words.

T would be endless to run through all the Varieties of Words, and Terms, which have difent Senses applied to them; I shall only menti-, therefore, a few of the most remarkable and oft useful Distinctions among them.

1st, The first Division of equivocal Words an . to les us know that some are equivocal only in their Sound or Pronunciation; others are equivocal only in Writing; and others, both in Writing, and in

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r. Sound. ... Word Words equivocal in Sound only, are fuch as of these; the Rein of a Bridle, which hath the same und with the Reign of a King or a Shower of main, but all three have different Letters, and dinct Spelling. So Might, or Strength, is equia cal in Sound, but differs in Writing from Mite, we little Animal, or a small Piece of Money. And with Verb to write, has the same Sound with right a Workman, Right or Equity, and Rite Ceremony; but it is spelled very differently m them all.

Words equivocal in Writing only, are such as y tese; to tear in Pieces, has the same Spelling th a Tear: To lead, or guide, has the same tters as Lead the Metal: And a Bowl for Reation is written the same Way as a Bowl for be nking, but the Pronunciation of all these is

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But those Words which are most commonly justly call'd equivocal, are such as are both tten and pronounc'd the fame Way, and yet we different Senses or Ideas belonging to them;

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fuch are all the Instances which were given in

the preceding Section.

Among the Words which are equivocal in Sound only, and not in Writing, there is a larg Field for Persons who delight in Jests and Punt in Riddles and Quibbles, to sport themselves This sort of Words is also used by wanton Persons, to convey lewd Ideas, under the Covert of Expressions capable of a chaste Meaning, which are called double Entendres; or when Person speak Falshood with a Design to deceive, under the Covert of Truth. Tho' it must be conset that all sorts of equivocal Words yield sufficient Matter for such Purposes.

There are many Cases also, wherein an equivacal Word is used for the sake of Decency to come a soul Idea: For the most chaste and modest, as well-bred Persons, having sometimes a Necessato speak of the Things of Nature, convey the Ideas in the most inosfensive Language by the Means. And indeed, the mere Poverty of Languages makes it necessary to use equivact Words upon many Occasions, as the comme Words upon many Occasions, as the comme Writings of Men, and even the holy Book

God fufficiently manifest.

ed, according to their Original, into such, who various Senses arise from mere Chance or Accide and such as are made equivocal by Design; as tword Bear signifies a shaggy Beast, and it signs she also to bear or carry a Burthen; this seems be the mere effect of Chance: But if I call a Dog, Bear, because he is shaggy, or call one the Northern Constellations by that Name, from sancied Situation of the Stars in the Shape of the Animal, then it is by Design that the Word made yet farther equivocal.

But because I think this common Account of the Spring or Origin of equivocal Words is too light and imperfect, I shall reserve this Subject to be treated of by itself, and proceed to the third

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3^{dly}, Ambiguous or equivocal Words, are such as are sometimes taken in a large and general Sense, and sometimes in a Sense more strict and imited, and have different Ideas affixed to them ccordingly. Religion or Virtue, taken in a large sense, includes both our Duty to God and our Neighbour; but in a more strict, limited, and proper Sense, Virtue signifies our Duty towards Men, ind Religion our Duty to God. Virtue may yet be aken in the strictest Sense, and then it signifies Power or Courage, which is the Sense of it in some Places of the New Testament. So Grace, taken na large Sense, means the Favour of God, and all he spiritual Bleffings that proceed from it (which s a frequent Sense of it in the Bible) but in a imited Sense it signifies the Habit of Holiness vrought in us by Divine Favour, or a complex n in the strictest Sense; and thus it lighted and ingle Christian Virtue, as in 2 Cor. viii. 6, 7. where is used for Liberality. So a City, in a strict and proper Sense, means the Houses inclosed within the dea of the Christian Virtues. It may be also taksuburbs.

This larger and stritter Sense of a Word is used n almost all the Sciences, as well as in Theoloy, and in common Life. The Word Geography, aken in a strict sense, signifies the Knowledge of he Circles of the earthly Globe, and the Situatin of the various Parts of the Earth; when it is aken in a little larger Sense, it includes the Knowedge of the Seas also; and in the largest Sense of E 3

all, it extends to the various Customs, Habita and Governments of Nations. When an Aftronomer uses the Word Star in its proper and strid Sense, it is applied only to the fixed Stars, but in

a large Sense it includes the Planets also.

This equivocal Sense of Words belongs also to many proper Names: So Asia taken in the large Sense is one quarter of the World; in a more li mited Sense it fignifies Natolia, or the leffer Asia; but in the strictest Sense it means no more than one little Province of Natolia, where stood the Cities of Ephesus, Smyrna, Sardis, &c. and this is the most frequent Sense of it in the New Testa ment. Flanders and Holland, in a strict Sense are but two fingle Provinces among the feventeen but in a large Sense Holland includes seven of them, and Flanders ten.

There are also some very common and little Words in all Languages, that are us'd in a more extensive or more limited Sense; such as all, every whosever, &c. When the Apostle says, all Me bave sinned, and all Men must die, all is taken in its most universal and extensive Sense, including all Mankind, Rom. v. 12. When he appoints Prayer to be made for all Men, it appears by the following Verses, that he restrains the Word all to fignify chiefly all Ranks and Degrees of Men I Tim. ii. I. But when St. Paul fays, I please a Men in all things, I Cor. x. 33. the Word all exceedingly limited, for it reaches no farther than that he pleas'd all those Men whom he conversa with, in all things that were lawful.

4thly, Equivocal Words are in the fourth Place distinguish'd by their literal or figurative Sense Words are us'd in a proper or literal Sense, when they are defign'd to fignify those Ideas for which they were originally made, or to which they are

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primarily and generally annexed; but they are us'd in a figurative or tropical Sense, when they are made to fignify fome things, which only bear either a Reference or a Resemblance to the primary Ideas of them. So when two Princes contend by their Armies, we say they are at War in a proper Sense; but when we say there is a War betwixt the Winds and the Waves in a Storm, this is call'd Figurative, and the peculiar Figure is a Metaphor. So when the Scripture fays, Riches. make themselves Wings, and fly away as an Eagle toward Heaven, the Wings and the Flight of the Eagle are proper Expressions; but when Flight and Wings are applied to Riches, it is only by Way of Figure and Metaphor. So when Man is faid to repent, or laugh, or grieve, it is literally taken; but when God is faid to be grieved, to repent, or laugh, &c. these are all figurative Expressions, borrow'd from a Resemblance to Mankind. And when the Words Job or Esther are us'd to fignify those very Persons, it is the literal Sense of them; but when they fignify those two Books of Scripture, this is a figurative Sense. The Names of Horace, Juvenal, and Milton, are us'd in the same manner, either for Books or Men.

When a Word, which originally fignifies any particular Idea or Object, is attributed to feveral other Objects, not so much by way of Resemblance, but rather on the Account of some evident Reference or Relation to the original Idea, this is sometimes peculiarly call'd an analogical Word; so a sound or healthy Pulse; a sound Digestion; sound Sleep, are all so call'd, with Reference to a sound and healthy Constitution; but if you speak of sound Dostrine, or sound Speech, this is by way of Resemblance to Health, and the E 4

Words are metaphorical: Yet many Times Analogy and Metaphor are used promiscuously in the

fame Sense, and not distinguish'd.

Here note, That the Design of metaphorical Language and Figures of Speech is not merely to represent our Ideas, but to represent them with Vivacity, Spirit, Affection, and Power; and tho' they often make a deeper Impression on the Mind of the Hearer, yet they do as often lead him into a Mistake, if they are us'd at improper Times and Places. Therefore, where the Defign of the Speaker or Writer is merely to explain, to instruct, and to lead into the Knowledge of naked Truth, he ought, for the most part, to use plain and proper Words, if the Language affords them, and not to deal much in figurative Speech. But this fort of Terms is used very profitably by Poets and Orators, whose Business is to move, and perfuade, and work on the Passions, as well as on the Understanding. Figures are also happily employed in proverbial moral Sayings by the wifest and the best of Men, to impress them deeper on the Memory by fensible Images; and they are often used for other valuable Purposes in the sacred Writings.

Words; as there are some which have a different Meaning in common Language, from what they have in the Sciences; the Word Passion signifies the receiving any Action in a large philosophical Sense; in a more limited philosophical Sense, it signifies any of the Affections of human Nature, as Love, Fear, Joy, Sorrow, &c. But the common People confine it only to Anger. So the Word Simple philosophically signifies Single, but vulgar-

ly it is used for Foolish.

6thly, Other equivocal Words are us'd sometimes in an absolute Sense, as when God is called persect, which allows of no Defect; and sometimes in a comparative Sense, as good Men are oftentimes call'd persect in Scripture, in Comparison of those who are much inferior to them in Knowledge or Holiness: But I have dwelt rather too long upon this Subject already, therefore I add no more.

SECT. VIII.

The Origin or Causes of equivocal Words.

OW, that we may become more skilful in guarding ourselves and others against the Dangers of Mistake which may arise from equivocal Words, it may not be amiss to conclude this Chapter with a short Account of the various Ways or Means whereby a Word changes its Signification, or acquires any new Sense, and thus becomes equivocal, especially if it keeps its old Sense also.

different Senses; as the Word Light signifies a Body that is not beavy; and it also signifies the Effect of Sun-Beams, or the Medium whereby we see Objects: This is merely accidental, for there seems to be no Connection between these two Senses, nor any Reason for them.

2. Error and Mistake is another Occasion of giving various Senses to the same Word; as when different Persons read the Names of Priest, Bishop, Church, Easter, &c. in the New Testament, they affix different Ideas to them, for want of Acquaintance with the true Meaning of the sacred Writer; tho' it must be confess'd, these va-

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rious Senses, which might arise at first from honest Mistake may be culpably supported and propagated by Interest, Ambition, Prejudice, and a

Party-Spirit on any Side.

3. Time and Custom alters the Meaning of Words. Knave heretofore signified a diligent Servant (Gnavus;) and a Villain was a meaner Tenant to the Lord of the Manor (Villicus;) but now both those Words carry an Idea of Wickedness and Reproach in them. A Ballad once signified a solemn and sacred Song, as well as one that is trivial, when Solomon's Song was called the Ballad of Ballads; but now it is applied to nothing but trifling Verse, or comical Subjects.

4. Words change their Sense by Figures and Metaphors, which are deriv'd from some real Analogy or Resemblance between several things; as when Wings and Flight are applied to Riches, it fignifies only, that the Owner may as easily lose them, as he would lose a Bird who slew away with

Wings.

And I think, under this Head, we may rank those Words, which signify different Ideas, by a fort of an unaccountable far-fetcht Analogy, or diffant Resemblance, that Fancy has introduced between one thing and another; as when we say, the Meat is green when it is half-roasted: We speak of airing Linen by the Fire, when we mean drying or warming it: We call for round Coals for the Chimney, when we mean large square ones: And we talk of the Wing of a Rabbit, when we mean the Fore-Leg: The true Reason of these Appellations we leave to the Criticks.

5. Words also change their Sense by the special Occasion of using them, the peculiar manner of Pronunciation, the Sound of the Voice, the Motion of the Face, or Gestures of the Body; so when an angry

angry Master says to his Servant, it is bravely done, or you are a fine Gentleman, he means just the contrary; namely, it is very ill done; you are a forry Fellow: It is one way of giving a severe Reproach, for the Words are spoken by way of

Sarcasm or Irony.

6. Words are applied to various Senses, by new Ideas appearing or arising faster than new Words are framed. So when Gun-Powder was found out, the Word Powder, which before signified only Dust, was made then to signify that Mixture or Composition of Nitre, Charcoal, &c. and the Name Canon, which before signified a Law or a Rule, is now also given to a great Gun, which gives Laws to Nations. So Footboys, who had frequently the common Name of Jack given them, were kept to turn the Spit, or to pull off their Master's Boots; but when Instruments were invented for both those Services, they were both call'd Jacks, tho' one was of Iron, the other of Wood, and very different in their Form.

7. Words alter their Significations according to the Ideas of the various Persons, Setts, or Parties who use them, as we have hinted before; so when a Papist uses the Word Hereticks he generally means the Protestants; when a Protestant uses the Word, he means any Persons who were willfully (and perhaps contentiously) obstinate in sundamental Errors. When a few speaks of the true Religion, he means the Institutions of Moses; when a Turk mentions it he intends the Dostrine of Mahomet; but when a Christian makes use of it, he designs to signify Christianity, or the Truths and Precepts of the

Gospel.

8. Words have different Significations according to the Book, Writing, or Discourse in which they stand. So in a Treatise of Anatomy, a Foot signifies

fignifies that Member in the Body of Man: But in a Book of Geometry or Mensuration it fignifies twelve Inches.

If I had Room to exemplify most of these Particulars in one fingle Word, I know not where to chuse a fitter than the Word Sound, which feems (as it were) by Chance, to fignify three diftinct Ideas, (viz.) Healthy, (from Sanus) as a found Body; Noise (from Sonus) as a shrill Sound; and to found the Sea (perhaps from the French Sonde, a Probe, or an Instrument to find the Depth of Water.) From these three, which I may call original Senses, various derivative Senses arise; as found Sleep, found Lungs, found Wind and Limb, a found Heart, a found Mind, found Dostrine, a found Divine, found Reason, a found Cask, found Timber, a found Reproof, to beat one foundly, to found one's Meaning or Inclination, and a found or narrow Sea, turn these all into Latin, and the Variety will appear plain.

I confess, some sew of these which I have mention'd, as the different Springs of equivocal Words, may be reduced in some Cases to the same Original: But it must also be granted, that there may be other Ways besides these whereby a Word comes to extend its Signification, to include various Ideas, and become equivocal. And tho' it is the Business of a Grammarian to pursue these Remarks with more Variety and Particularity, yet it is also the Work of a Logician to give Notice of these Things, lest Darkness, Confusion, and Perplexity be brought into our Conceptions by the Means of Words, and thence our Judg-

ments and Reasonings become erroneous.

CHAP. V.

General Directions relating to our Ideas.

Direction I. Turnish yourselves with a rich Variety of Ideas; acquaint yourselves with things ancient and modern; things natural, civiland religious; things domestick and national; things of your native Land, and of foreign Countries; things present, past and suture; and above all, be well acquainted with God and yourselves; learn animal Nature, and the Workings of your own Spirits.

Such a general Acquaintance with things will

be of very great Advantage.

The first Benefit of it is this; it will affist the Use of Reason in all its following Operations; it will teach you to judge of things aright, to argue justly, and to methodise your Thoughts with Accuracy. When you shall find several things akin to each other, and several different from each other, agreeing in some Part of their Idea, and disagreeing in other Parts, you will range your Ideas in better order, you will be more easily led into a distinct Knowledge of things, and will obtain a rich Store of proper Thoughts and Arguments upon all Occasions.

You will tell me perhaps that you defign the Study of the Law or Divinity; and what Good can natural Philosophy or Mathematicks do you, or any other Science, not directly subordinate to your chief Design? But let it be considered, that all Sciences have a fort of mutual Connection; and Knowledge of all Kinds sits the Mind to reason and judge better concerning any particular Sub-

ject.

ject. I have known a Judge upon the Bench betray his Ignorance, and appear a little confus'd in his Sentiments about a Case of suspected Murder brought before him for want of some Acquaint-

ance with animal Nature and Philosophy.

Another Benefit of it is this; such a large and general Acquaintance with things will secure you from perpetual Admirations and Surprises, and guard you against that Weakness of ignorant Persons, who have never seen any thing beyond the Confines of their own Dwelling, and therefore they wonder at almost every thing they see; every thing beyond the Smoke of their own Chimney, and the Reach of their own Windows, is new and strange to them.

A third Benefit of such an universal Acquaintance with things, is this; it will keep you from being too positive and dogmatical, from an Excess of Credulity and Unbelief, i. e. a Readiness to believe, or to deny every thing at first hearing; when you shall have often seen, that strange and uncommon things, which often seemed incredible, are found to be true; and things very commonly re-

ceiv'd have been found false.

The Way of attaining such an extensive Treasure of Ideas, is, with Diligence to apply yourself to read the best Books; converse with the most knowing and the wisest of Men, and endeavour to improve by every Person in whose Company you are; suffer no Hour to pass away in a lazy Idleness, an impertinent Chattering or useless Tristes: Visit other Cities and Countries when you have seen your own, under the Care of one who can teach you to profit by Travelling, and to make wise Observations; indulge a just Curiosity in seeing the Wonders of Art and Nature; search into things yourselves, as well as learn them

them from others; be acquainted with Men as well as Books; learn all things as much as you can at first Hand; and let as many of your Ideas as possible be the Representations of things, and not merely the Representations of other Mens Ideas: Thus your Soul, like some noble Building, shall be richly furnish'd with original Paintings, and not with mere Copies.

Direct. II. Use the most proper Methods to retain that Treasure of Ideas which you have acquired; for the Mind is ready to let many of them slip, unless some Pains and Labour be taken to fix them upon

the Memory.

And more especially let those Ideas be laid up and preserv'd with the greatest Care, which are most directly suited, either to your eternal Welfare as a Christian, or to your particular Station and Profession in this Life; for the former Rule recommends an universal Acquaintance with Things, yet it is but a more general and supersicial Knowledge that is requir'd or expected of any Man, in things which are utterly foreign to his own Business; but it is necessary you should have a more particular and accurate Acquaintance with those things that refer to your peculiar Province and Duty in this Life, or your Happiness in another.

There are some Persons who never arrive at any deep, solid, or valuable Knowledge in any Science or any Business of Life, because they are perpetually fluttering over the Surface of things in a curious and wandring Search of infinite Variety; ever hearing, reading, or asking after something new, but impatient of any Labour to lay up and preserve the Ideas they have gained: Their Souls may be compar'd to a Looking-Glass,

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that wherefoever you turn it, it receives the Images of all Objects, but retains none.

In order to preserve your Treasure of Ideas and the Knowledge you have gain'd, pursue these Ad.

vices especially in your younger Years.

or heard, or read, which may have made any Addition to your Understanding: Read the Writings of God and Men with Diligence and perpetual Reviews: Be not fond of hastning to a new Book, or a new Chapter, till you have well fix'd and establish'd in your Minds what was useful in the last: Make use of your Memory in this manner, and you will sensibly experience a gradual Improvement of it, while you take Care not to load it to excess.

2. Talk over the things which you have seen, heard or learnt with some proper Acquaintance; this will make a fresh Impression upon your Memory; and if you have no fellow Student at hand, none of equal Rank with yourselves, tell it over to any of your Acquaintance, where you can do it with Propriety and Decency; and whether they learn any thing by it or no, your own Repetition of it will be an Improvement to yourself: And this Practice also will furnish you with a Variety of Words and copious Language, to express your Thoughts upon all Occasions.

3. Commit to writing some of the most considerable Improvements which you daily make, at least such Hints as may recall them again to your Mind, when perhaps they are vanish'd and lost. And here I think Mr. Locke's Method of Adversaria or common Places, which he describes in the End of the first Volume of his postbumous Works, is the best; using no learned Method at all, setting down things as they occur, leaving a dis-

nct Page for each Subject, and making an Index

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At the End of every Week, or Month, or Year you may review your Remarks for these Reasons: First, to judge of your own Improveent, when you shall find that many of your ounger Collections are either weak and trifling; or if they are just and proper, yet they are grown now fo familiar to you, that you will hereby fee your own Advancement in Knowledge. And in the next Place what Remarks bu find there worthy of your riper Observation, bu may note them with a marginal Star, instead franscribing them, as being worthy of your frond Years Review, when the others are neglected.

To shorten something of this Labour, if the Books which you read are your own, mark with Pen, or Pencil, the most considerable things in them which you defire to remember. you may read that Book the fecond Time over with half the Trouble, by your Eye running er the Paragraphs which your Pencil has ted. It is but a very weak Objection against is this Practice to fay, I shall spoil my Book; for I persuade myself that you did not buy it as a Bookseller to sell it again for Gain, but as a Mind be improved, your Advantage is abundant, at though your Book yields less Money to your Exeir cutors.

Note, This Advice of Writing, Marking, and Reviewing your Marks, remarks the chiefly to those occasional Notions you meet with either in Reading or in Conversation: But when you are directly and professedly pursuing any Subted of Knowledge in a good System in your younger Years, the System it is your Common-Place Book, and must be entirely review'd. The same may be said concerning any Treatise which closely, succincitly and accurately landles any particular Theme.

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Direct. III. As you proceed both in Learning and in Life, make a wife Observation what are the Idea, what the Discourses and the Parts of Knowledge that have been more or less useful to yourself or others. our younger Years, while we are furnishing ou Minds with a Treasure of Ideas, our Experience is but small, and our Judgment weak; it therefore impossible at that Age to determine arigh concerning the real Advantage and Usefulness of man things we learn. But when Age and Experient have matured your Judgment, then you wi gradually drop the more useless Part of you younger Furniture, and be more follicitous ton tain that which is most necessary for your We fare in this Life, or a better. Hereby you w come to make the same Complaint that almo every learned Man has done after long Expen ence in Study, and in the Affairs of human Li and Religion; Alas! how many Hours, and Day and Months, have I lost in pursuing some Parts Learning, and in reading some Authors, which he turned to no other Account, but to inform me, the they were not worth my Labour and Pursuit! Happ the Man who has a wife Tutor to conduct his through all the Sciences in the first Years of Study; and who has a prudent Friend always Hand to point out to him from Experience h much of every Science is worth his Pursuit! A happy the Student that is so wise as to follow in Advice!

Direct. IV. Learn to acquire a Government of your Ideas and your Thoughts, that they may " when they are called, and depart when they are now den. There are some Thoughts that rise and trude upon us while we shun them; there the tl

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thers that fly from us, when we would hold and x them.

If the Ideas which you would willingly make ne Matter of your present Meditation are ready fly from you, you must be obstinate in the Purnt of them by an Habit of fixed Meditation; enq ou must keep your Soul to the Work, when it ready to start aside every Moment, unless you igh ill abandon yourself to be a Slave to every ild Imagination. It is a common, but it is an phappy and a shameful thing, that every Trifle at comes across the Senses or Fancy should divert s, that a buzzing Fly should teize our Spirits, and atter our best Ideas: But we must learn to be eaf and regardless of other things, besides that hich we make the present Subject of our Metation: And in order to help a wandring and ckle Humour, it is useful to have a Book or Paer in our Hands, which has some proper Hints of the Subject that we design to pursue. We suff be resolute and laborious, and sometimes onflict with overselves if we would be wise and arned.

Yet I would not be too severe in this Rule: It ust be confessed there are Seasons when the Mind, rather the Brain is overtir'd or jaded with Study
Thinking; or upon some other Accounts anial Nature may be languid or cloudy, and unfit to list the Spirit in Meditation; at such Seasons (proded that they return not too often) it is better ometimes to yield to the present Indisposition; or if Nature intirely resist, nothing can be done the Purpose, at least in that Subject or Sciice. Then you may think it proper to give purself up to some Hours of Leisure and Recreaon, or useful Idleness; or if not, then turn your houghts to some other alluring Subjects, and pore no

no longer upon the first, till some brighter or mor favourable Moments arise. A Student shall de more in one Hour, when all things concur to vite him to any special Study, than in four Houn

at a dull and improper Season.

I would also give the same Advice, if some van or worthless, or foolish Idea will crowd itself in your Thoughts; and if you find that all your L bour and Wrestling cannot defend yourself from it, then divert the Importunity of that which of fends you by turning your Thoughts to some enter taining Subject, that may amuse a little and dra you off from the troublesome and imposing Guel and many a Time also in such a Case, when the impertinent and intruding Ideas would divert fro present Duty, Devotion and Prayer have been ver fuccessful to overcome such obstinate Troubless the Peace and Profit of the Soul.

If the natural Genius and Temper be too wo tile, fickle and wandring, fuch Persons ought in more especial manner to apply themselves to m thematical Learning, and to begin their Studi with Arithmetick and Geometry; wherein no Truths, continually arising to the Mind out the plainest and easiest Principles, will allure Thoughts with incredible Pleasure in the Pursul This will give the Student fuch a delightful Ta of Reasoning, as will fix his Attention to fingle Subject which he purfues and by Degra will cure the habitual Levity of his Spirit : B let him not indulge and purfue these so far, as neglect the prime Studies of his defign'd Profe fion.

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CHAP. VI.

pecial Rules to direct our Conceptions of things.

Great Part of what has been already written is defigned to lay a Foundation for ofe Rules, which may guide and regulate our onceptions of things; this is our main Bufiness d Defign in the first Part of Logick. Now if we n but direct our Thoughts to a just and happy lanner in forming our Ideas of things, the other perations of the Mind will not fo eafily be perrted; because most of our Errors in Judgment, d the Weakness, Fallacy and Mistake of our rgumentation proceed from the Darkness, Consion, Defect, or some other Irregularity in our onceptions.

The Rules to affift and direct our Conceptions

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VI.

1. Conceive of things clearly and distinctly in their own Natures.

2. Conceive of things completely in all their

3. Conceive of things comprehensively in all their

Properties and Relations. 4. Conceive of things extensively in all their Kinds.

5. Conceive of things orderly, or in a proper Method.

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SECT.

SECT. I.

Of gaining clear and distinct Ideas.

THE first Rule is this, Seek after a clear and distinct Conception of things as they are in this own Nature, and do not content yourselves with of scure and confused Ideas, where clearer are to be a tain'd.

There are some things indeed whereof distin Ideas are scarce attainable, they seem to surpl the Capacity of the Understanding in our pro fent State; fuch are the Notions of Eternal, In mense, Infinite, whether this Infinity be applied Number, as an infinite Multitude; to Quantity, infinite Length, Breadth; to Powers and Performance tions, as Strength, Wisdom, or Goodness in nite, &c. Tho' Mathematicians in their w demonstrate several things in the Doctrine Infinites, yet there are still some insolvable Dif culties that attend the Ideas of Infinity, when is applied to Mind or Body; and while it is Reality but an Idea ever growing, we cannot has so clear and distinct a Conception of it as to cure us from Mistakes in some of our Reasoning about it.

There are many other things that belong the material World, wherein the sharpest Philosophers have never yet arrived at clear and distinct Ideas, such as the particular Shape, Situation Contexture, Motion of the small Particles of Mineral Metals, Plants, &c. whereby their very Natural and Essences are distinguished from each other Nor have we either Senses or Instruments stated in the sense of the same and accurate to find them of there are other things in the World of Spirit

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VI. S. 1. The right Use of Reason.

therein our Ideas are very dark and confused, uch as their Union with animal Nature, the way of their acting on material Beings, and their Converse with each other. And tho' it is a laudable Ambition to search what may be known of these Matters, yet it is a vast Hindrance to the Enrichment of our Understandings, if we spend too nuch of our Time and Pains among Infinites and Insearchables, and those things for the Investigation whereof we are not surnished with proper Saculties in the present State. It is therefore of great Service to the true Improvement of the Mind to distinguish well between Knowables and Inknowables.

As far as things are knowable by us, it is of excellent Use to accustom ourselves to clear and distinct Ideas. Now among many other Occasions of the Darkness and Mistakes of our Minds, there are these two things which most remarkably bring Confusion into our Ideas.

i. That from our Infancy we have had the Ideas of things so far connected with the Ideas of Words, that we often Mistake Words for things, we min-

gle and confound one with the other.

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2. From our youngest Years we have been ever ready to consider things not so much in their own Natures, as in their various Respects to ourselves, and chiefly to our Senses; and we have also join'd and mingled the Ideas of some things, with many other Ideas, to which they are not akin in their own Natures.

In order therefore to a clear and distinct Knowledge of things, we must uncloath them of all these Relations and Mixtures, that we may contemplate them naked, and in their own Natures; and distinguish the Subject that we have in View from all other Subjects whatsoever: Now to per-

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form this well, we must here consider the Definition of Words, and the Definition of things.

SECT. II.

Of the Definition of Words or Names.

F we could conceive of things as Angels and unbodied Spirits do, without involving them in those Clouds which Words and Language throw upon them, we should feldom be in Danger fuch Mistakes as are perpetually committed by in the present State; and indeed it would be of unknown Advantage to us to accustom ourselves to form Ideas of things without Words, that we might know them in their own proper Natures. But find we must use Words, both to learn and to communicate most of our Notions, we should do with just Rules of Caution. I have already declar'd in part, how often and by what Means our Words become the Occasions of Errors in our Conceptions of things. To remedy fuch Incomveniencies, we must get an exact Definition of the Words we make use of, i. e. we must determine precisely the Sense of our Words, which is call'd the Definition of the Name.

Now a Definition of the Name being only a Declaration in what Sense the Word is used, or what Idea or Object we mean by it, this may be express'd by any one or more of the Properties. Effects or Circumstances of that Object which do sufficiently distinguish it from other Objects: As if I were to tell what I mean by the Word Air, I might say it is that thin Matter which we breath in and breath out continually; or it is that fluid Body in which the Birds fly a little above the Earth; or it is that invisible Matter which fills all Places.

Places near the Earth, or which immediately encompasses the Globe of Earth and Water. So if I would tell what I mean by Light, I would fay, it is that Medium whereby we see the Colours and Shapes of things; or it is that which distinguishes the Day from the Night. If I were ask'd what I mean by Religion, I would answer, it is a Collection of all our Duties to God, if taken in a strict and limited Sense: but if taken in a large Sense, it is a Collection of all our Duties both to God and Man. These are call'd

the Definitions of the Name.

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Note, In defining the Name there is no Necessity that we should be acquainted with the intimate Esfence or Nature of the thing; for any manner of Description that will but sufficiently acquaint another Person what we mean by such a Word, is a fufficient Definition for the Name. And on this Account, a synonymous Word, or a mere Negation of the contrary, a Translation of the Word into another Tongue, or a grammatical Explication of it, is fometimes sufficient for this Purpose; as if one would know what I mean by a Sphere, I tell him it is a Globe; if he ask what is a Triangle, it is that which has three Angles; or an Oval is that which has the Shape of an Egg. Dark is that which has no Light; Asthma is a Difficulty of Breathing; a Diaphoretick Medicine, or a Sudorifick, is something that will provoke Sweating; and an Infolvent is a Man that cannot pay his Debts.

Since it is the Design of Logick, not only to asfift us in Learning but in Teaching also, it is necesfary that we should be furnish'd with some particular Directions relating to the Definition of Names,

both in Teaching and Learning.

SECT. III.

Directions concerning the Definition of Names.

Direct. I. TAVE a Care of making use of mere Words, instead of Ideas, i. e. such Words as have no Meaning, no Definition belonging to them: Do not always imagine that there are Ideas wheresoever there are Names; for tho' Mankind hath fo many Millions of Ideas more than they have Names, yet so foolish and lavish are we, that too often we use some Words in mere Waste, and have no Ideas for them; or at least, our Ideas are so exceedingly shattered and confused, broken and blended, various and unsettled, that they can fignify nothing toward the Improvement of the Understanding. will find a great deal of Reason for this Remark, if you read the Popish School-men or the mystick Divines.

Never rest satisfied therefore with mere Words which have no Ideas belonging to them, or at least no settled and determinate Ideas. Deal not in such empty Ware, whether you are a Learner or a Teacher; for hereby some Persons have made themselves rich in Words, and learned in their own Esteem; whereas in reality their Understandings have been poor and they knew nothing.

Let me give for instance some of those Writers or Talkers who deal much in the Words Nature, Fate, Luck, Chance, Perfection, Power, Life, Fortune, Instinct, &c. and that even in the most calm and instructive Parts of their Discourse; though neither they themselves nor their Hearers have any settled Meaning under those Words;

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and thus they build up their Reasonings, and infer what they please, with an Ambition of the Name of Learning or of sublime Elevations in Religion; whereas in truth, they do but amuse themselves and their Admirers with swelling Words of Vanity, understanding neither what they say, nor whereof they affirm. But this sort of Talk was reproved of old by the two chief Apostles St. Peter and St. Paul, I Tim. i. 7. and 2 Pet. ii. 18.

When Pretenders to Philosophy or good Sense grow fond of this fort of Learning, they dazzle and confound their weaker Hearers, but fall under the Neglect of the Wise. The Epicureans are guilty of this Fault, when they ascribe the Formation of this World to Chance: The Aristotelians, when they fay, Nature abbors a Vacuum: The Stoicks when they talk of Fate, which is fuperior to the Gods: And the Gamesters when they curse their Ill-Luck, or hope for the Favours Whereas, if they would tell us, that of Fortune. by the Word Nature they mean the Properties of any Being, or the order of things established at the Creation; that by the Word Fate they intend the Decrees of God, or the necessary Connection and Influence of second Causes and Effects; if by the Word Luck or Chance they fignify the absolute Negation of any determinate Cause, or only their Ignorance of any such Cause, we should know how to converse with them, and to affent to, or diffent from their Opinions. But while they flutter in the dark, and make a Noise with Words which have no fixt Ideas, they talk to the Wind, and can never profit.

I would make this Matter a little plainer still by Instances borrowed from the *Peripatetick* Philosophy, which was taught once in all the Schools.

Schools. The Professor fancies he has affign'd the true Reason, why all beavy Bodies tend downward, why Amber will draw Feathers or Straws, and the Loadstone draw Iron, when he tells you, that this is done by certain gravitating and attractive Qualities, which proceed from the substantial Forms of those various Bodies. He imagines that he has explain'd why the Loadstone's * North Pole, shall repel the North End of a magnetick Needle, and attrast the South, when he affirms, that this is done by its Sympathy, with one End of it, and its Antipathy against the other End. Whereas in truth, all these Names of Sympathy, Antipathy, substantial Forms and Qualities, when they are put for the Causes of these Effects in Bodies, are but hard Words, which only express a learned and pompous Ignorance of the true Cause of natural Appearances; and in this Sense they are mere Words without Ideas.

This will evidently appear, if one ask me, why a concave Mirrour or convex Glass will burn Wood in the Sun-Beams, or why a Wedge will cleave it? And I should tell him, it is by an ustorious Quality in the Mirrour or Glass, and by a cleaving Power in the Wedge, arising from a certain unknown substantial Form in them, whence they derive these Qualities; or if he should ask me why a Clock strikes, and points to the Hour, and I should say, it is by an indicating Form and sonorise Quality; whereas I ought to tell him how the Sun-Beams are collected and united by a burning Glass; whence the mechanical Force of a Wedge is deriv'd; and what are the Wheels and Springs,

^{*} Note, Some Writers call that the South-Pole of a Loadstone which attracts the South-End of the Needle; but I chuse to follow those who call it the North-Pole.

the Pointer and Hammer, and Bell, whereby a Clock gives notice of the Time, both to the Eye and the Ear. But these ustorious and cleaving Powers, sonorous and indicating Forms and Qualities, do either teach the Enquirer nothing at all but what he knew before, or they are mere Words without Ideas*.

And there is many a Man in the vulgar and in the learned World, who imagines himself deeply skilled in the Controversies of Divinity, whereas he has only furnished himself with a Parcel of scholastick or mystick Words, under some of which the Authors themselves had no just Ideas, and the Learner when he hears, or pronounces them, hath scarce any Ideas at all. Such sort of Words sometimes have become Matters of immortal Contention, as though the Gospel could not stand without them; and yet the Zealot perhaps knows little more of them than he does of Shibboleth, or Higgaion, Selah. Judges xii. 6. Psal. ix. 16.

Yet here I would lay down this Caution, that there are feveral Objects of which we have not a clear and distinct Idea, much less an adequate or comprehensive one, and yet we cannot call the Names of these things Words without Ideas;

^{*} It may be objected here, "And what does the modern Philosopher, "with all his detail of mathematical Numbers and Diagrams, do more than this toward the Solution of these Difficulties? Does he not describe "Gravity by a certain unknown Force, whereby Bodies tend downward to the "Center?" Hath he found the certain and mechanical Reasons of Attraction, "Magnetism, &c.?" I Answer, That the Moderns have found a thousand things by applying Mathematicks to natural Philosophy, which the Ancients were ignorant of; and when they use any Names of this Kind, viz. Gravitation, Attraction, &c. they use them only to signify, that there are such Esseets and such Causes, with a frequent Consession of their Ignorance of the true Springs of them: They do not pretend to make these Words stand for the real Causes of things, as the they thereby assigned the true philosophical Solution of these Difficulties; for in this Sense they will still be Words without Ideas, whether in the Mouth of an old Philosopher or a new one.

fuch are the Infinity and Eternity of God himself, the Union of our own Soul and Body, the Union of the divine and human Natures in Jesus Christ, the Operation of the holy Spirit on the Mind of Man, &c. These ought not to be called Words without Ideas, for there is sufficient Evidence for the Reality and Certainty of the Existence of their Objects, tho' there is some Consusion in our clearest Conceptions of them; and our Ideas of them, tho' impersect, are yet sufficient to converse about them, so far as we have Need, and to determine so much as is necessary for our own Faith and Practice.

Direct. II. Do not suppose that the Natures or Essences of things always differ from one another, as much as their Names do. There are various Purposes in human Life, for which we put very different Names on the same thing, or on things, whose Natures are near akin; and thereby oftentimes, by making a new nominal Species, we are ready to deceive ourselves with the Idea of another real Species of Beings: And those whose Understandings are led away by the mere Sound of Words, fancy the Nature of those things to be very different whose Names are so, and judge of them accordingly.

I may borrow a remarkable Instance for my Purpose almost out of every Garden, which contains a Variety of Plants in it. Most or all Plants agree in this, that they have a Root, a Stalk, Leaves, Buds, Blossoms and Seeds: But the Gardiner ranges them under very different Names, as tho' they were really different Kinds of Beings, merely because of the different Use and Service which they are applied by Men: As for Instance,

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those Plants whose Roots are eaten shall appropriate the Name of Roots to themselves; such are Carrots, Turnips, Radishes, &c. If the Leaves are of chief use to us, then we call them Herbs; as Sage, Mint, Thyme: If the Leaves are eaten raw they are termed Sallad; as Lettuce, Pursain: If boilded, they become Pot-berbs; as Spinage, Coleworts; and some of those same Plants, which are Pot-berbs in one Family, are Sallad in another. If the Buds are made our Food, they are called Heads, or Tops; so Cabbage Heads, Heads of Afparagus and Artichoaks. If the Bloffom be of most Importance, we call it a Flower; such are Daisies, Tulips, and Carnations, which are the mere Blossoms of those Plants. If the Husk or Seeds are eaten, they are call'd the Fruits of the Ground, as Pease, Beans, Strawberries, &c. If any Part of the Plant be of known and common Use to us in Medicine, we call it a physical Herb, as Carduus, Scurvey-grass; but if we count no Part useful, we call it a Weed, and throw it out of the Garden; and yet perhaps our next Neighbour knows fome valuable Property and Use of it; he plants it in his Garden, and gives it the Title of an Herb or a Flower. You see here how small is the real Distinction of these several Plants, consider'd in their general Nature as the lesser Vegetables: yet what very different Ideas we vulgarly form concerning them, and make different Species of them, chiefly because of the different Names given them.

Now when things are fet in this clear Light, it appears how ridiculous it would be for two Persons to contend, whether Dandelion be a Herb, or a Weed; whether it be a Pot-herb or Sallad; when by the Custom or Fancy of different Families, this one Plant obtains all these Names, according

cording to the feveral Uses of it, and the Value

that is put upon it.

Note here, that I find no manner of Fault with the Variety of Names which are given to several Plants, according to the various Uses we make of them. But I would not have our Judgments impos'd upon hereby, to think that these mere me minal Species, viz. Herbs, Sallad and Weeds be come three really different Species of Beings, on this Account, that they have different Names and Uses. But I proceed to other Instances.

It has been the Custom of Mankind, when they have been angry with any thing, to add new ill Name to it, that they may convey there by a hateful Idea of it, tho' the Nature of the thing still abides the same. So the Papists call the Protestants Hereticks: A prophane Person call a Man of Piety, a Precisian: And in the Time of the Civil War in the last Century, the Royalift call'd the Parliamentarians, Fanaticks, Roundhead and Sectaries: And they in Requital call'd the Royalists, Malignants: But the Partizans on each fide were really neither better nor worse for the Names.

It has also been a frequent Practice on the other Hand, to put new favourable Names upon it Ideas, on purpose to take off the Odium of them But notwithstanding all these flattering Name and Titles, a Man of profuse Generosity is but Spendthrift; a natural Son is a Bastard still; a Gallant is an Adulterer, and a Lady of Pleasure is Whore.

Direct. III. Take heed of believing the Natura and Essence of two or more things to be certainly the same, because they may have the same Name give them. This has been an unhappy and fatal Occa

on of a thousand Mistakes in the natural, in the vil, and in the religious Affairs of Life, both nongst the Vulgar and the Learned. I shall give o or three Instances, chiefly in the Matters of atural Philosophy, having hinted several Dangers this Kind, relating to Theology in the foregoing

scourse concerning Equivocal Words.

Our elder Philosophers have generally made use the Word Soul to fignify that Principle wherea Plant grows, and they called it the vegeive Soul: The Principle of the animal Motion a Brute has been likewise call'd a Soul, and we ve been taught to name it the fensitive Soul: hey have also given the Name Soul, to that surior Principle in Man, whereby he thinks, iges, reasons, &c. and tho' they distinguish'd s by the honourable Title of the rational Soul, in common Discourse and Writing we leave t the Words vegetative, sensitive and rational; d make the Word Soul serve for all these Prinles: Thence we are led early into this Imagition, that there is a fort of spiritual Being in ants and in Brutes, like that in Men. Whereif we did but abstract and separate these Things m Words, and compare the Cause of Growth a Plant, with the Cause of Reasoning in Man thout the Word Soul) we shall never think t these two Principles were at all like one aner; nor should we perhaps so easily and peaptorily conclude, that Brutes need an intelliat Mind to perform their animal Actions. Another Instance may be the Word LIFE.

ich being attributed to Plants, to Brutes, and Men, and in each of them ascribed to the Soul, very eafily betrayed us from our Infancy into Mistake, that the Spirit, or Mind, or think-Principle in Man, is the Spring of vegetative

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an animal life to his body: Whereas it is evident that if the Spirit or thinking Principle of Man gave Life to his animal Nature, the Way to fave Men from dying would not be to use Medi cines, but to persuade the Spirit to abide in the

Body.

I might derive a third Instance from the Word HEAT; which is used to signify the Sensation w have when we are near the Fire, as well as the Cause of that Sensation which is in the Fire itself and thence we conclude from our Infancy, that there is a fort of Heat in the Fire resembling our own Sensation, or the Heat which we feel: Whereas in the Fire there is nothing but little Particles of Matter, of fuch particular Shapes, Sizes, Situa tions and Motions as are fitted to impress sud Motions on our Flesh or Nerves as excite the Serife of Heat. Now if this Cause of our Sensa tion in the Fire had been always called by ad finct Name, perhaps we had not been fo roote in this Mistake, that the Fire is bot with the fam fort of Heat that we feel. This will appear will more Evidence, when we confider that we as fecure from the same Mistake where there have been two different Names allotted to our Sensation and to the Cause of it; as, we do not say, Paini in the Fire that burns us, or in the Knife that cut and wounds us; for we call it burning in the Fin cutting in the Knife, and Pain only, when it in our selves. .

Numerous Instances of this Kind might be de riv'd from the Words sweet, sour, loud, shrill, and almost all the fensible Qualities, whose real N tures we mistake from our very Infancy, and are ready to suppose them to be the same in and in the Bodies that cause them; partly, b cause the Words which signify our own Sensar

ns, are applied also to signify those unknown hapes and Motions of the little Corpuscles which keite and cause those Sensations.

Direct. IV. In Conversation or Reading be dilient to find out the true Sense, or distinct Idea;
which the Speaker or Writer affixes to his Words;
and especially to those Words which are the chief
ubject of his Discourse. As far as possible take
eed, lest you put more or sewer Ideas into one
Vord, than the Person did when he wrote or
booke; and endeavour that your Ideas of every
Vord may be the same as his were: Then
ou will judge better of what he speaks or
writes.

It is for want of this that Men quarrel in the ark; and that there are so many Contentions in the several Sciences, and especially in Divinity sultitudes of them arise from a Mistake of the we Sense or compleat Meaning, in which Words to use they seem to agree, when they really differ their Sentiments; and sometimes they seem to fer when they really agree. Let me give an Inance of both.

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When one Man by the Word Church shall aderstand all that believe in Christ; and another the Word Church means only the Church of ome; they may both assent to this Proposition, There is no Salvation out of the Church, and at their inward Sentiments may be widely different.

Again, if one Writer shall affirm that Virtue ded to Faith is sufficient to make a Christian, and other shall as zealously deny this Proposition, ey seem to differ widely in Words, and yet thaps they may both really agree in Sentiment:

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If by the Word Virtue, the Affirmer intends our whole Duty to God and Man; and the Denier by the Word Virtue means only Courage, or at most our Duty toward our Neighbour, without including in the Idea of it the Duty which we owen God.

Many such fort of Contentions as these are, traced to their Original, will be found to be men Logomachies, or Strifes and Quarrels about Name and Words, and vain Janglings, as the Apolls calls them in his first Letter of Advice to The

mothy.

In order therefore to attain clear and distint Ideas of what we read or hear, we must search the Sense of Words; we must consider what i their Original and Derivation in our own or fo reign Languages; what is their common Sent amongst Mankind, or in other Authors, especial ly fuch as wrote in the same Country, in the sam Age, about the same Time, and upon the sam Subjects: We must consider in what Sense the same Author uses any particular Word or Phra and that when he is discoursing on the same Ma ter, and especially about the same Parts or Pan graphs of his Writing: We must consider wh ther the Word be used in a strict and limited, in a large and general Sense; whether in a literal in a figurative, or in a prophetick Sense; wh ther it has any secondary Idea annext to it beside the primary or chief Sense. We must enqui farther, what is the Scope and Defign of the Writer; and what is the Connection of that So tence with those that go before it, and those white follow it. By these and other Methods we are fearch out the Definition of Names, i. e. the m Sense and Meaning in which any Author or Speak uses any Word, which may be the chief Subject and

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of Discourse, or may carry any considerable Im-

Direct. V. When we communicate our Notions to thers, merely with a Design to inform and improve beir Knowledge, let us in the Beginning of our Disourse take care to adjust the Definition of Names oberesoever there is need of it; that is, to determine lainly what we mean by the chief Words which re the Subject of our Discourse; and be sure always o keep the same Ideas, when soever we use the same Vords, unless we give due Notice of the Change. This will have a very large and happy Influence, n securing not only others but our selves too from Confusion and Mistake; for even Writers and peakers themselves, for want of due Watchfuless, are ready to affix different Ideas to their own Vords, in different Parts of their Discourses, and ereby bring Perplexity into their own Reason-

ngs, and confound their Hearers.

It is by an observation of this Rule, that Mabematicians have so happily secured themselves, nd the Sciences which they have profest, from Vrangling and Controversy; because whensoever the Progress of their Treatises they have Ocasson to use a new and unknown Word, they alrays define it, and tell in what Sense they shall ake it; and in many of their Writings you find heap of Definitions at the very beginning. the Writers of Natural Philosophy and Morality ad used the same Accuracy and Care, they had fectually feeluded a Multitude of noify and fruits Debates out of their several Provinces: Nor ad that facred Theme of Divinity been perplex-d with so many intricate Disputes, nor the Church of Christ been torn to pieces by 10 man, and Factions, if the Words Grace, Faith, righte-ousness f Christ been torn to pieces by so many Sects G 3

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ousness, Repentance, Justification, Worship, Church, Bishop, Presbyter, &c. had been well defined, and their Significations adjusted, as near as possible by the Use of those Words in the new Testament, or at least, if every Writer had told us at first in what Sense he would use those Words.

Direct. VI. In your own Studies, as well as in the Communication of your Thoughts to others, mere ly for their Information, avoid ambiguous and equi vocal Terms as much as possible. Do not use such Words as have two or three Definitions of the Name belonging to them, i. e. fuch Words a have two or three Senses, where there is an Danger of Mistake. Where your chief Busines is to inform the Judgment, and to explain a Mar ter; rather than to persuade or affect, be not fond of expressing your selves in figurative Language when there are any proper Words that fignify the same Idea in their literal Sense. It is the Ambi guity of Names, as we have often faid, that bring almost infinite Confusion into our Conceptions Things.

But where there is a necessity of using an ambiguous Word, there let double Care be used in the fining that Word, and declaring in what Sense you take it. And be sure to suffer no ambiguous Word

ever to come into your Definitions.

Direct. VII. In communicating your Notions, we every Word near as possible in the same Sense which Mankind commonly uses it; or which Writen that have gone before you have usually affect to the upon Condition that it is free from Ambiguity. The Names are in their Original merely arbitrary, you we should always keep to the establish'd Meaning of them, unless great Necessity require the Alteration

eration; for when any Word has been used to ignify an Idea, that old Idea will recur in the Mind when the Word is heard or read, rather than any new Idea which we may fasten to it. And this is one Reason why the receiv'd Definitions of Names should be changed as little as possible.

But I add farther, that tho' a Word entirely new, introduced into a Language, may be affixed to what Idea you please, yet an old Word ought never to be fixt to an unaccustomed Idea, without use and evident Necessity, or without present or previous Notice, lest we introduce thereby a License for all manner of pernicious Equivocations and Falshoods; as for Instance, when an idle Boy who has not seen his Book all the Morning shall tell his Master that he has learnt his Lesson, he can never excuse himself by saying, that by the Word Lesson he meant his Breakfast, and by the Word learn he meant eating; surely this would be contrued a downright Lie, and his fancied Wit would hardly procure his Pardon.

In using an ambiguous Word which has been used in different Senses, we may chuse what we think the most proper Sense, as I have done p. 86. in naming the *Poles of the Loadstone*, North or

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And when a Word has been used in two or three Senses, and has made a great Inroad for Error upon that Account, it is of good Service to drop one or two of those Senses, and leave it only one remaining, and affix the other Senses or Ideas to other Words. So the modern Philosophers, when they treat of the human Soul, they call it the Mind or Mens humana, and leave the Word Anima or Soul to signify the Principle of Life and Motion in mere animal Beings.

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The Poet Juvenal has long ago given us a him of this Accuracy and Distinction when he says Brutes and Men.

Indulfit mundi communis Conditor illis Tantum Animas; nobis Animum quoque. Sat. xvi. v. 134

Exception. There is one Case wherein some these last Rules concerning the Definition of Work may be in some measure dispensed with; and that is, when strong and rooted Prejudice hath establish'd some favourite Word or Phrase, and long used it to express some mistaken Notion, or n unite some inconsistent Ideas; for then it is some times much easier to lead the World into Trun by indulging their Fondness for a Phrase, and affigning and applying new Ideas and Notions their Favourite Word; and this is much fafer all than to awaken all their Passions by rejecting both their old Words, and Phrases, and Notions, and introducing all new at once: Therefore we con tinue to say, There is Heat in the Fire, there Coldness in Ice, rather than invent new Words express the Powers which are in Fire or Ice, to excite the Sensations of Heat or Cold in us. For the fame Reason some Words and Phrases which are less proper may be continued in Theology, while People are led into clearer Ideas with much more Ease and Success, than if an Attempt were made to change all their beloved Forms of Speech.

In other Cases these logical Directions should generally be observed, and different Names affir

to different Ideas.

Here I cannot but take Occasion to remark that it is a confiderable Advantage to any Lan guage to have a Variety of new Words introduce into it, that when in Course of Time new Objects and new Ideas arise, there may be new Words and Names affign'd to them: And also where one fingle Name has fustain'd two or three Ideas in Time past, these new Words may remove the Ambiguity by being affixt to some of those Ideas. This Practice would by degrees take away part of the Uncertainty of Language. And for this Reason I cannot but congratulate our English Tongue, that it has been abundantly enrich'd with the Translation of Words from all our neighbour Nations, as well as from antient Languages, and thefe Words have been as it were enfranchised amongst us; for French, Latin, Greek and German Names will fignify English Ideas, as well as Words that are antiently and intirely English.

It may not be amiss to mention in this Place, that as the Determination of the particular Sense in which any Word is used is called the Definition of the Name, so the Enumeration of the various Senses of any equivocal Word is sometimes call'd the Division or Distinction of the Name; and for this Purpose good Dictionaries are of excellent

Use.

This Distinction of the Name or Word is greatly necessary in Argumentation or Dispute; when a sallacious Argument is used, he that answers it distinguishes the several Senses of some Word or Phrase in it, and shews in what Sense it is true and in what Sense it is as evidently salse.

SECT. IV.

Of the Definition of Things.

A S there is much Confusion introduced into to which they are affixed; fo the mingling our Ideas with each other without Caution, is a farther Occasion whereby they become confused. A Court-Lady, born and bred up amongst Pomp and Equipage, and the vain Notions of Birth and Quality, constantly joins and mixes all these with the Idea of her felf, and she imagines these to be effential to ber Nature, and as it were necessary to be Being; thence she is tempted to look upon menial Servants, and the lowest Rank of Mankind, as another Species of Beings quite distinct from her felf. A Plough Boy that has never travelled be yond his own Village, and has feen nothing but thatch'd Houses and his Parish-Church, is naturally led to imagine that Thatch belongs to the very Nature of a House, and that that must be a Church which is built of Stone, and especially if it has a Spire upon it. A Child whose Uncle has been exceffive fond, and his Schoolmaster very severe, eafily believes that Fondness always belongs to Uncles, and that Severity is effential to Masters of Instructors. He has seen also Soldiers with real Coats, or Ministers with long black Gowns, and therefore he perfuades himself that these Garbs are effential to the Characters, and that he is not a Minister who has not a long black Gown, nor can he be a Soldier who is not dreffed in red. It would be well if all fuch Mistakes ended with Childhood.

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It might be also subjoined, that our complex Ideas become confused, not only by uniting or blending together more simple or single Ideas than really belong to them, as in the Instances just mention'd; but Obscurity and Confusion sometimes come upon our Ideas also, for want of uniting a sufficient Number of single Ideas to make the complex one: So if I conceive of a Leopard only as a spotted Beast, this does not distinguish it from a Tyger or a Lynx, nor from many Dogs or Horses, which are spotted too; and therefore a Leopard must have some more Ideas added to complete and distinguish it.

I grant that it is a large and free Acquaintance with the World, a watchful Observation and diligent Search into the Nature of things that must fully correct this kind of Errors: The Rules of Logick are not sufficient to do it: But yet the Rules of Logick may instruct us by what means to distinguish one thing from another, and how to search and mark out as far as may be the Contents and Limits of the Nature of distinct Beings, and thus may give us great Assistance towards the Remedy

of these Mistakes.

As the Definition of Names frees us from that Confusion which Words introduce, so the Definition of Things will in some Measure guard us against that Confusion which mingled Ideas have introduced: For as a Definition of the Name explains what any Word means, so a Definition of the Thing explains what is the Nature of that thing.

In order to form a Definition of any thing we must put forth these three Acts of the

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wherein its Essence or Nature agrees with them; and that is call'd the general Nature or Genus in a Definition: So if you would define what Wine is, first compare it with other Things like itself, as Cyder, Perry, &c. and you will find it agrees effentially with them in this, that it is a fort of Fuice.

2dly, Consider the most remarkable and primary Attribute, Property, or Idea wherein this Thing differs from those other Things that are most like it; and that is its effential or specific Difference: So Wine differs from Cyder and Perry, and all other Juices, in that it is pressed from a This may be called its special Nature, which distinguishes it from other Juices.

3dly, Join the general and special Nature together, or (which is all one) the Genus and the Difference, and these make up a Definition. So the Juice of a Grape, or Juice prest from Grapes is the

Definition of Wine.

So if I would define what Winter is, I consider first wherein it agrees with other Things which are most like it (viz.) Summer, Spring, Autumn, and I find they are all Seasons of the Year; therefore a Season of the Year is the Genus. Then I observe wherein it differs from these, and that is in the shortness of the Days; for it is this which does primarily distinguish it from other Seasons; therefore this may be call'd its special Nature or its Difference. Then by joining these together I make a Definition. Winter is that Season of the Year wherein the Days are shortest. I confess indeed this is but a ruder Definition of it, for to define it as an accurate Astronomer I must limit the Days, Hours and Minutes.

After the same manner if we would explain of define what the Picture of a Man is, we consider

first the Genus or general Nature of it, which is a Representation; and herein it agrees with many other Things, as a Statue, a Shadow, a Print, a verbal Description of a Man, &c. Then we consider wherein it differs from these, and we find it differs from a verbal Description in that it is a Representation to the Eye and not to the Ear: It differs from a Statue in that it is a Representation upon a flat Surface, and not in a folid Figure: It differs from a Shadow in that it is an abiding Representation and not a fleeting one: It differs from a Print or Draught, because it represents the Colours by Paint as well as the Shape of the Object by Delineation. Now fo many, or rather fo few of these Ideas put together, as are just sufficient to distinguish a Pisture from all other Representations, make up its effential Difference or its special Nature; and all these are included in its being painted on a plain Surface. Then join this to the Genus, which is a Representation; and thus you have the compleat Definition of the Picture of a Man, viz. it is the Representation of a Man in Paint upon a Surface (or a Plane)

Here it must be observed, that when we speak of the Genus and Difference as composing a Definition, it must always be understood that the nearest Genus and the specifick Difference are re-

quired.

The next general Nature or the nearest Genus must be used in a Definition, because it includes all the rest; as if I would define Wine, I must say Wine is a Juice, which is the nearest Genus; and not say, Wine is a Liquid, which is a remote general Nature; or Wine is a Substance, which is yet more remote, for Juice includes both Substance and Liquid. Besides, neither of these two remote general Natures would make

any Distinction betwixt Wine and a thousand other Substances, or other Liquids, a remote Genus leaves

the thing too much undistinguish'd.

The specifick Difference is that primary Attribute which distinguishes each Species from one another, while they stand ranked under the same general Nature or Genus. Tho' Wine differs from other Liquids in that it is the Juice of a certain Fruit, yet this is but a general or generick Difference, for it does not distinguish Wine from Cyder or Perry; the specifick Difference of Wine therefore is its Pressure from the Grape, as Cyder is pressed from Ap.

ples, and Perry from Pears.

In Definitions also we must use the primary A. tribute that distinguishes the Species or special Nature, and not attempt to define Wine by its particular Tastes, or Effects, or other Properties, which are but fecondary or confequential, when its Pressure from the Grape is the most obvious and primary Distinction of it from all other Juices. I confess in some Cases it is not so easily known which is the primary Idea that diffinguishes one thing from another; and therefore fome would as foon define Winter by the Coldness of the Season, as by the Shortness of the Days; though the Shortness of the Days is doubtless the most just, primary and philosophical Difference betwixt that and the other Seasons of the Year, fince Winter Days are always shortest, but not always the coldest: I add also, that the Shortness of the Days is one Cause of the Coldness, but the Cold is no Cause of their Shortness.

SECT. V.

Rules of Definition of the thing.

THE special Rules of a good Definition are these:

Rule I. A Definition must be universal, or as some call it, adequate; that is, it must agree to all the particular Species or Individuals that are included under the same Idea; so the Juice of a Grape agrees to all proper Wines, whether Red, White, French, Spanish, Florence, &c.

Rule II. It must be proper and peculiar to the thing defined, and agree to that alone; for it is the very Design of a Desinition effectually to distinguish one thing from all others: So the Juice of a Grape agrees to no other Substance, to no other Liquid, to no other Being but Wine.

These two Rules being observed will always render a Definition reciprocal with the thing defined; which is a scholastick Way of speaking, to signify that the Definition may be used in any Sentence in the Place of the thing defined, or they may be mutually affirmed concerning each other, or substituted in the room of each other. The fuice of the Grape is Wine, or Wine is the fuice of the Grape. And wheresoever the Word Wine is used, you may put the fuice of the Grape instead of it, except when you consider Wine rather as a Word than a Thing, or when it is mentioned in such logical Rules.

Rule III. A Definition ought to be clear and plain; for the Design of it is to lead us into the Know-

ledge of the thing defined.

Hence it will follow that the Words used in a Definition ought not to be doubtful, and equivocal, and obscure, but as plain and easy as the Language will afford: And indeed it is a general Rule concerning the Definition both of Names and Things, that no Word should be used in either of them which has any Darkness or Difficulty in it, unless it has been before explain'd or defined.

Hence it will follow also, that there are many Things which cannot well be defined either as to the Name or the Thing, unless it be by synonymous Words, or by a Negation of the contrary Idea, &c. for learned Men know not how to make them more evident or more intelligible than the Ideas which every Man has gained by the vulgar Methods of teaching. Such are the Ideas of Extension, Duration, Thought, Consciousness, and most of our simple Ideas, and particularly sensible Qualities, as White, Blue, Red, Cold, Heat, Shrill, Bitter, Sour, &c.

We can fay of Duration that it is a Continuance in Being, or a not ceasing to be; we can say of Consciousness, that it is as it were a Feeling within our selves; we may say Heat is that which is not Cold; or Sour is that which is like Vinegar; or we may point to the clear Sky, and say that is Blue. These are the vulgar Methods of teaching the Definitions of Names, or Meaning of Words But there are some Philosophers whose Attempt to define these Things learnedly have wrapt up their Ideas in greater Darkness, and exposed themselves to ridicule and Contempt; as when they define Heat they say, it is Qualitas congregans be-

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hering together Things of the fame Kind, and eparating Things of a different Kind. So they efine White, a Colour arising from the Prevalence f Brightness: But every Child knows Hot and White better without these Definitions.

There are many other Definitions given by the peripatetick Philosophers, which are very faulty by Reason of their Obscurity; as Motion is defined by them the Ast of a Being in Power so far orth as it is in Power. Time is the Measure or Number of Motion according to past, present and sture. The Soul is the Ast of an organical natural body, having Life in Power; and several others of the same Stamp.

Rule IV. It is also commonly prescribed aongst the Rules of Definition, that it should be ort, so that it must have no Tautology in it, nor w Words superfluous. I confess Definitions ought be expressed in as few Words as is consistent ith a clear and just Explication of the Nature the Thing defined, and a Distinction of it from other Things beside: But it is of much more inportance, and far better, that a Definition fould explain clearly the Subject we treat of, o' the Words be many, than to leave Obscuris in the Sentence, by confining it within too rrow Limits. So in the Definition which we ve given of Logick, that it is the Art of using eason well in the Search after Truth and the Commication of it to others, it has indeed many Words it, but it could not well be shorter. Art is the mus wherein it agrees with Rhetorick, Poefy, rithmetick, Wrestling, Sailing, Building, &c. for these are Arts also: But the Difference or speal Nature of it is drawn from its Object, Rea-

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fon; from the Act using it well, and from its two great Ends or Designs, viz. the Search of Truth, and the Communication of it: Nor can it be justly described and explained in sewer Ideas.

V. If we add a fifth Rule, it must be that not ther the thing defined, nor a mere synonymous Nam should make any part of the Definition, for the would be no Explication of the Nature of the Thing and a synonymous Word at best could only be Definition of the Name.

SECT VI.

Observations concerning the Definition of Things.

B Efore I part with this Subject I must propose several Observations which relate to the De

nition of Things.

we should be confined to one single Attribute a Property, in order to express the Disserence of the Thing defined, for sometimes the essential Disserence consists in two or three Ideas or Attribute So a Grocer is a Man who buys and sells Sugar at Plumbs and Spices for Gain. A Clock is an Engine with Weights and Wheels, that shews the Hour the Day both by pointing and striking: And if I we to define a Repeating Clock I must add anothe Property, viz. that it also repeats the Hour. I that the true and primary essential Difference some complex Ideas consisting in several distinctive Particles of Speech.

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always be positive, for some Things differ from other

merely by a Defect of what others have; as if a Chair be defined a Seat for a single Person with a Back belonging to it, then a Stool is a Seat for a single Person without a Back; and a Form is a Seat for several Persons without a Back: These are negative Differences. So Sin is a want of Conformity to the Law of God; Blindness is a want of Sight. A Vagabond is a Person without a Home. Some Ideas are negative, and their Definitions ought to be so too.

3d Observ. Some Things may have two or more Definitions, and each of them equally just and good; as a Mile is the Length of eight Furlongs, or it is the third part of a League. Eternal is that which ever was and ever shall be; or it is that which had no Beginning and shall have no End. * Man is usually defined a rational Animal: But it may be much better to define him a Spirit united to an Inimal of such a Shape, or an Animal of such a perdiar Shape united to a Spirit, or a Being composed such an animal and a Mind.

4th Observ. Where the Essences of Things are vident, and clearly distinct from each other, there e may be more exact and accurate in the Desirions of them: But where their Essences approach warer to each other, the Desinition is more distinct. A Bird may be defined a seathered Animal with Wings, a Ship may be defined a large hollow wilding made to pass over the Sea with Sails: But you ask me to define a Batt, which is between Bird and a Beast, or to define a Barge and Hoy,

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The common Definition of Man, viz. a rational Animal, is very faulty, Because the Animal is not rational; the Rationality of Man arises from Mind to which the Animal is united. 2. Because if a Spirit should be nited to a Horse and make it a rational Being, surely this would not be a in: It is evident therefore that the peculiar Shape must enter into the Detion of a Man to render it just and perfect; and for want of a full Detection thereof all our Definitions are desective.

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which are between a Boat and a Ship, it is my harder to define them, or to adjust the Bound of their Essence. This is very evident in all ma strous Births and irregular Productions of Nature, well as in many Works of Art, which partake much of one Species and fo much of another, the we cannot tell under which Species to rank then or how to determine their specifick Difference.

The feveral Species of Beings are feldom p cifely limited in the Nature of Things by a certain and unalterable Bounds: The Essences many Things do not consist in indivisibili, or one evident indivisible Point, as some have in gined; but by various Degrees they approx nearer to, or differ more from others that area Kindred Nature. So (as I have hinted before) the very middle of each of the Arches of a Ra bow the Colours of green, yellow, and red aref ficiently distinguished; but near the Borden the feveral Arches they run into one another, that you hardly know how to limit the Color nor whether to call it red or yellow, green, blue.

5th Observ. As the highest or chief Genus's, a Being and Not-Being can never be defined, bear let there is no Genus superior to them; so neither Te fingular Ideas or Individuals be well defined, sin cause either they have no essential Differences so for other Individuals, or their Differences are new known; and therefore Individuals are only to the describ'd by their particular Circumstances: King George is distinguish'd from all other Mall and other Kings, by describing him as the these King of Great Britain of the House of Brunsul Mest and Westminster-Hall is described by its Situat James and its Use, &c.

That individual Bodies can hardly have any ffential Difference, at least within the Reach of our Knowledge, may be made thus to appear; Methuselah, when he was nine hundred and fixty Years old, and perhaps worn out with Age and Weakness, was the same Person as when he was in his full Vigour of Manhood, or when he was in Infant, newly born; but how far was his Body the fame? who can tell whether there was any Fibre of his Flesh or his Bones that continued the ame throughout his whole Life? or who can deermine which were those Fibres? The Ship in which Sir Francis Drake failed round the World night be new built and refitted fo often, that w of the fame Timbers remained; and who can by whether it must be called the same Ship or no? and what is its effential Difference? How hall we define Sir Francis Drake's Ship, or make Definition for Methuselah?

To this Head belongs that most difficult Question, What is the Principle of Individuation? or what is it that makes any one Thing the same as it was sometime before? This is too large and aborious an Enquiry to dwell upon it in this Place: Yet I cannot forbear to mention this Hint, viz. Since our own Bodies must rise at the last Day for us to receive Rewards or Punishments in them, there may be perhaps some original Fibres of each human Body, some Stamina Vitæ, or primeval Sted of Life, which may remain unchanged thro' all the Stages of Life, Death and the Grave; these may become the Springs and Principles of a Resurrection, and sufficient to denominate it the same Body. But if there be any such constant and vital Atoms which distinguish every human Body, they are known to God only.

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6th Observ. Where we cannot find out the Es. sence or essential Difference of any Species or Kind of Beings that we would define, we must content our felves with a Collection of fuch chie Parts or Properties of it as may best explain it far as it is known, and best distinguish it from other Things: So a Marigold is a Flower which ball so many long yellow Leaves round a little Knot of Seeds in the midst with such a peculiar Stalk, &c So if we would define Silver, we say it is a white and bard Metal, next in Weight to Gold: If we would define an Elder-Tree, we might fay it is one among the leffer Trees, whose younger Branch are soft and full of Pith, whose Leaves are jagge or indented, and of such a particular Shape, and bears large Clusters of small black Berries: So w must define Water, Earth, Stone, a Lyon, an Es gle, a Serpent, and the greatest part of natura Beings, by a Collection of those Properties, which according to our Observation distinguish then from all other Things. This is what Mr. Lot calls nominal Essences, and nominal Definitions. An indeed fince the essential Differences of the various natural Beings or Bodies round about us arise from a peculiar Shape, Size, Motion and Situation the small Particles of which they are composed and fince we have no fufficient Method to inform us what these are, we must be contented with fuch a fort of Definition of the Bodies they com pose.

Here note that this fort of Definition, which is made up of a mere Collection of the most markable Parts or Properties, is called an imperfet Definition or a Description; whereas the Definition is called perfect when it is composed of the defential Difference added to the general Nature of

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Iways includes the Definition of the Name whereby it is called, for it informs us of the Sense or Meaning of that Word, and shew us what Idea hat Word is affixed to: But the Definition of the Name does by no means include a perfect Definition of the Thing; for as we have said before, a mere synonymous Word, a Negation of the contrary, or the mention of any one or two distinguishing Properties of the Thing may be a sufficient Definition of the Name. Yet in those Cases where the essential Difference or Essence of a Thing is unknown, there a Definition of the Name by the chief Properties, and a Description of the Thing are much the same.

And here I think it necessary to take Notice of one general Sentiment that feems to run thro' that excellent Performance, Mr. Locke's Estay of Human Understanding, and that is, "That the Essences of Things are utterly unknown to us, and therefore all our Pretences to distinguish the Essences of Things can reach no far-"ther than mere nominal Essences; or a Collection of such Properties as we know; to some of " which we affix particular Names, and others we bundle up, feveral together, under one Name: And that all our Attempts to rank Be-" ings into different Kinds of Species's can reach " no farther than to make mere nominal Species; " and therefore our Definitions of Things are but " mere nominal Descriptions or Definitions of the

Now that we may do Justice to this great Aubor, we ought to consider that he consines this
Sort of Discourse only to the Essence of simple
Ideas, and to the Essence of Substances, as appears
evident in the fourth and fixth Chapters of his
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Third Book: for he allows the Names of mixe Modes always to signify the real Essences of the Species, Chap. V. and he acknowledges artificia Things to have real distant Species; and that in the Distinction of their Essences there is generally le Confusion and Uncertainty than in natural, Ch. VI Sect. 40, 41. tho' it must be confess'd that he scare makes any Distinction between the Definition the Name and the Definition of the thing, as Ch IV. and sometimes the Current of his Discours decries the Knowledge of Essences in such gene ral Terms as may justly give Occasion to mil take.

It must be granted, that the Essence of mol of our simple Ideas and the greatest part of par ticular natural Substances are much unknown to us and therefore the effential Difference of fensible Qualities and of the various Kinds of Bodies, (a I have faid before) lye beyond the Reach of ou Understandings: We know not what makes the primary real inward Distinction between Ra Green, Sweet, Sour, &c. between Wood, Iron Oil, Stone, Fire, Water, Flesh, Clay, in their ge neral Natures, nor do we know what are their ward and prime Distinctions between all the par ticular Kinds or Species in the Vegetable, Anima Mineral, Metallick, or Liquid World of Thing See Philosoph. Essays. Ess. xi. Sec. 1.

But still there is a very large Field for the Know ledge of the Essences of Things, and for the U of perfett Definitions amongst our complex Idea the modal Appearances and Changes of Nature, the Work of Art, the Matters of Science, and all the Affairs of the civil, the moral and the religion Life: and indeed it is of much more Important to all Mankind to have a better Acquaintance with the Works of Art for their own Livelihood and daily

daily use, with the Affairs of Morality for their Behaviour in this World, and with the Matters of Religion, that they may be prepared for the World to come, than to be able to give a perfect Definition of the Works of Nature.

If the particular Essences of Natural Bodies are unknown to us, we may yet be good Philosophers, good Artists, good Neighbours, good Subjects and good Christians without that Knowledge,

and we have just Reason to be content.

Now that the Essences of some of the modal Appearances and Changes in Nature, as well as Things of Art, Science and Morality are sufficiently known to us to make perfett Definitions of them, will appear by the Specimen of a few Definitions

of these Things.

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Motion is a Change of Place. Swiftness is the paffing over a long Space in a short Time. natural Day is the Time of one alternate Revolution of Light and Darkness, or it is the Duration of twenty four Hours. An Eclipse of the Sun is a Defect in the Sun's Transmission of Light to us by the Moon interposing. * Snow is congealed Vapour. * Hail is congeal'd Rain. An * Island is a Piece of Land rising above the surrounding Water. An *Hill is an elevated Part of the Earth, and a * Grove is a Piece of Ground thick fet with Trees. An House is a Building made to dwell in. A Cottage is a mean House in the Country. A Supper is that Meal which we make in the Evening. A Triangle is a Figure composed of three Sides. Gallon is a Measure containing eight Pints. Porter is a Man who carries Burdens for Hire.

Note, Island, Hill, Grove, are not defined here in their more remote and substantial Natures, (if I may so express 11) or as the Matter of them is Earth; for in this Sense we know not their Essence, but only as consider'd in their modal Appearances, whereby one part of Earth is distinguisht from nother. The same may be said of Snow, Hail, Sc.

King

King is the chief Ruler in a Kingdom. Veracity is the Conformity of our Words to our Thoughts, Covetousness is an excessive Love of Money, or other Possessions. Killing is the taking away the Life of an Animal. Murder is the unlawful killing of a Man. Rhetorick is the Art of speaking in a manner fit to persuade. Natural Philosophy is the Knowledge of the Properties of Bodies and the various Effects of them, or it is the Knowledge of the various Appearances in Nature and their Causes; and Logick is the Art of using our Reason well, &c.

Thus you see the essential Differences of various Beings may be known, and are borrowed from their Qualities and Properties, their Causes, Effects, Objects, Adjuncts, Ends, &c. and indeed as infinite. ly various as the Essences of Things are, their Definitions must needs have very various Forms.

After all it must be confessed, that many Logicians and Philosophers in the former Ages have made too great a Bustle about the Exactness of their Definitions of Things, and entered into long fruitless Controversies and very ridiculous Debates in the several Sciences about adjusting the Logical Formalities of every Definition; whereas that son of Wrangling is now grown very justly contemptible, since it is agreed that true Learning and the Knowledge of Things depends much more upon a large Acquaintance with their various Properties, Causes, Effects, Subject, Object, Ends and Designs, than it does upon the formal and scholastick Niceties of Genus and Difference.

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SECT. VII.

Of a compleat Conception of Things.

Having dwelt so long upon the first Rule to direct our Conceptions, and given an Account of the Definition both of Names and Things in order to gain clear and distinct Ideas, we make haste now to the second Rule to guide our Conceptions, and that is, Conceive of Things compleatly in all their Parts:

All Parts have a Reference to some Whole: Now there is an old Distinction which logical Writers make of a Whole and its Parts into sour several Kinds, and it may be proper just to mention them here.

1. There is a metaphysical Whole, when the Essence of a Thing is said to consist of two Parts, the Genus and the Difference, i. e. the general and the special Nature, which being joined together make up a Definition. This has been the Subject

of the foregoing Sections.

2. There is a mathematical Whole which is better called integral, when the several Parts, which go to make up the Whole are really distinct from one another, and each of them may subsist apart. So the Head, the Limbs and the Trunk are the integral Parts of an animal Body; so Unites are the integral Parts of any large Number; so these Discourses which I have written concerning Perception, Judgment, Reasoning and Disposition are the four integral Parts of Logick. This sort of Parts goes to make up the Compleatness of any Subject, and this is the chief and most direct Matter of our Discourse in this Section.

Part !

3. There is a physical or essential Whole, which is usually made to signify and include only the two essential Parts of Man, Body and Soul: But think the Sense of it may better be altered, or at least enlarged, and so include all the essential Modes, Attributes or Properties which are contained in the Comprehension of any Idea. This shall be the Subject of Discourse under the third Rule to direct our Conceptions.

4, There is a logical whole, which is also called an universal; and the Parts of it are all the particular Ideas to which this universal Nature extends. So a Genus is a Whole in respect of the several Species which are its Parts. So the Species is a Whole, and all the Individuals are the Parts of it. This shall be treated of in the fourth Rule

to guide our Conceptions.

At present we consider an Idea as an integral Whole, and our fecond Rule directs us to contemplate it in all its Parts: But this can only refer to complex Ideas, for simple Ideas have no Parts.

SECT. VIII.

Of Division, and the Rules of it.

Since our Minds are narrow in their Capacity, and cannot survey the several Parts of any complex Being with one single View, as God sees all Things at once, therefore we must as it were take it to Pieces, and consider of the Parts separately that we may have a more compleat Conception of the Whole. So if I would learn the Nature of a Watch, the Workman takes it to pieces and shews me the Spring, the Wheels, the Axles, the Pinions, the Balance, the Dial-Plate, the Pointer, the Case, &c. and describes each of these Things

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to me apart, together with their Figures and their Uses. If I would know what an Animal is, the Anatomist considers the Head, the Trunk, the Limbs, the Bowels apart from each other, and gives me distinct Lectures upon each of them. So a Kingdom is divided into its several Provinces: A Book into its several Chapters; and any Science is divided according to the several Subjects of which it treats.

This is what we properly call the Division of an Idea, which is an Explication of the Whole by its several Parts, or an Enumeration of the several Parts that go to compose any Whole Idea, and to render it compleat. And I think when Man is divided into Body and Soul, it properly comes under this Part of the Doctrine of integral Division, as well as when the mere Body is divided into Head, Trunk and Limbs: This Division is sometimes called Partition.

When any of the Parts of any Idea are yet farther divided in order to a clear Explication of the Whole, this is called a Subdivision; as when a Year is divided into Months, each Month into Days, and each Day into Hours, which may also be far-

ther subdivided into Minutes and Seconds.

It is necessary in order to the full Explication of any Being to consider each Part, and the Properties of it, distinct by it self, as well as in its Relation to the Whole: for there are many Properties that belong to the Parts of a Being which cannot properly be ascribed to the Whole, tho these Properties may sit each Part for its proper Station, and as it stands in that Relation to the whole complex Being: as in a House, the Doors are moveable, the Rooms square, the Cielings white, the Windows transparent, yet the House is neither moveable, nor square, nor white, nor transparent.

The special Rules of a good Division are these.

than the whole, but all the Parts taken collectively (or together) must contain neither more nor less than the whole. Therefore if in discoursing of a Tree you divide it into the Trunk and Leaves it is an imperfect Division, because the Root and the Branches are needful to make up the Whole. So Logick would be ill divided into Apprehension, Judgment and Reasoning, for Method is a considerable Part of the Art which teaches us to use our Reason right, and should by no Means be omitted.

Upon this Account, in every Division wherein we design a perfect Exactness, it is necessary to examine the whole Idea with Diligence, lest we omit any Part of it thro' want of Care; tho' in some Cases it is not possible, and in others it is not necessary that we should descend to the minutest Parts.

- 2. Rule. In all Divisions we should first consider the larger and more immediate Parts of the Subject, and not divide it at once into the more minute and remote Parts. It would by no means be proper to divide a Kindgom first into Streets, and Lanes, and Fields, but it must be first divided into Provinces or Counties, then those Counties may be divided into Towns, Villages, Fields, &c. and the Towns into Streets and Lanes.
- 3. Rule. The several Parts of a Division ought to be opposite, i. e. one Part ought not to contain an other. It would be a ridiculous Division of an Animal into Head, Limbs, Body and Brain, for the Brains are contained in the Head.

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Yet here it must be noted, that sometimes the ubjects of any Treatise, or the Objects of a paricular Science may be properly and necessarily so livided, that the fecond may include the first, and he third may include the first and second, without offending against this Rule, because in the seond or following Parts of the Science or Difcourse, these Objects are not considered in the same manner as in the first; as for Instance, Geometry divides its Objects into Lines, Surfaces and Solids: Now tho' a Line be contained in a Surface or solid, yet it is not confider'd in them feparate and alone, or as a mere Line, as it is in the first Part of Geometry which treats of Lines. So Logick is rightly divided into Conception, Judgment, Reasoning and Method; for tho' Ideas or Conceptions are contained in the following Parts of Logick, yet they are not there treated of as separate Ideas, which are the proper Subject of the first Part.

4. Rule. Let not Subdivisions be too numerous without Necessity: For it is better many Times to diffinguish more Parts at once if the Subject will bear it, than to mince the Discourse by excessive dividing and subdividing. It is preserable therefore in a Treatise of Geography to say that in a City we will consider its Walls, its Gates, its Buildings, its Streets, and Lanes, than to divide it formally sirst into the encompassing and the encompassed Parts; the encompassing Parts are the Walls and Gates; the encompassed Part includes the Ways and the Buildings; the Ways are the Streets and the Lanes; Buildings consist of the Foundations and the Superstructure, &c.

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Too great a Number of Subdivisions has been affected by some Persons in Sermons, Treatises, Instructions, &c. under Pretence of greater Accuracy: But this sort of Subtilties hath often given greater Confusion to the Understanding, and sometimes more Difficulty to the Memory. In these Cases it is only a good Judgment can determine what Subdivisions are needful.

5. Rule. Divide every Subject according to the special Design you have in View. One Idea or Subject may be divided in very different Mannen according to the different Purposes we have in discoursing of it. So if a Printer were to confider the several Parts of a Book, he must divide it into Sheets, the Sheets into Pages, the Page into Lines, and the Lines into Letters. But a Grammarian divides a Book into Periods, Sentenca and Words, or Parts of Speech, as Noun, Pronoun, Verb, &c. A Logician confiders a Book as divided into Chapters, Sections, Arguments, Propositions, Ideas, and with the Help of Ontology, he divides the Propositions into Subject, Object, Property, Relation, Action, Passion, Cause, Effett, & But it would be very ridiculous for a Logician to divide a Book into Sheets, Pages, and Lines; or for a Printer to divide it into Nouns and Pronouns, or into Propositions, Ideas, Properties, of Causes.

6. Rule. In all your Divisions observe with greatest exactness the Nature of Things. And here I am constrain'd to make a Subdivision of this Rule into two very necessary Particulars.

(1.) Let the Parts of your Division be such as are properly distinguished in Nature. Do not divide as a funder those Parts of the Idea which are intimately

mately united in Nature, nor unite those Things nto one Part which Nature has evidently difpined: Thus it would be very improper in treating of an Animal Body to divide it into the Supefor and inferior Halves; for it would be hard to by how much belongs by Nature to the inferior Half, and how much to the fuperior. Much more improper would it be still to divide the Animal nto the right Hand Parts and left Hand Parts, which would bring greater Confusion. This would be as unnatural as a Man who should deave a Hazel Nut in Halves thro' the Husk, the Shell and the Kernel at once, and fay a Nut is divided into these two Parts; whereas nature leads dainly to the threefold Distinction of Husk, Shell and Kernel.

(2.) Do not affect Duplicities nor Triplicities, nor any certain Number of Parts in your Division of Things; for we know of no such certain Number of Parts which God the Creator has observed in forming all the Varieties of his Creatures, nor is there any uniform determined Number of Parts the various Subjects of human Art or Science; yet some Persons have disturbed the Order of Nature and abused their Readers by an Affectation of Dichotomies Thrichotomies, Sevens, Twelves, &c. Let the Nature of the Subject, considered together with the Design which you have in view, always determine the Number of Parts into which you divide it.

After all, it must be confess'd that an intimate Knowledge of Things and a judicious Observation will affist in the Business of Division, as well as of Definition, better than too nice and curious an Attention to the mere Formalities of logical Writers, without a real Acquaintance with Things.

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SECT. IX.

Of a comprehensive Conception of Things, and Abstraction.

THE third Rule to direct our Conception to quires us to conceive of Things comprehensive ly. As we must survey an Object in all its Pan to obtain a compleat Idea of it, so we must confe der it in all its Modes, Attributes, Properties an Relations, in order to obtain a comprehensive Con ception of it.

The Comprehension of an Idea, as it was er plain'd under the Doctrine of Universals, include only the effential Modes or Attributes of that Ida but in this Place the Word is taken in a large Sense, and implies also the various occasional Pr

perties, accidental Modes and Relations.

The Necessity of this Rule is founded up the fame Reason as the former, viz. That or and Minds are narrow and scanty in their Capacitis and and as they are not able to consider all the Paramos of a complex Idea at once, so neither can they once contemplate all the different Attributes as Circumstances of it: We must therefore considered, Appearances and Circumstances: As our nature our composers at once, behold the six Sides of a life if Eye cannot at once behold the fix Sides of a D Life or Cube, nor take Cognizance of all the Pin multiple are marked on them, and therefore and the sides of a D Life or Cube. that are marked on them, and therefore we to are up the Sides successively, and thus survey and not ber the Points that are mark'd on each Side, the we may know the whole we may know the whole.

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In order to a comprehensive View of any Idea, we must first consider whether the Object of it has an Existence as well as an Essence; whether it be asimple or a complex Idea; whether it be a Subfance or a Mode; if it be a Substance, then we must enquire what are the effential Modes of it, which are necessary to its Nature, and what are those Properties or Accidents of it, which belong to it occasionally, or as it is placed in some particular Circumstances: We must view it in its internal and absolute Modes, and observe it in those various external Relations in which it stands to other Beings: We must consider it in its Powers and Capacities either to do or suffer: We must trace up to its various Causes, whether supream or bordinate. We must descend to the Variety its Effects, and take notice of the several Ends d Designs which are to be attained by it. We must conceive of it as it is either an Object or a and what are the Things that are akin to it, and what are the Opposites or Contraries of it; for any Things are to be known both by their conary and their kindred Ideas.

If the thing we discourse of be a mere Mode, we

If the thing we discourse of be a mere Mode, we must enquire whether it belong to Spirits or Bodies; whether it be a physical or moral Mode: If moral, then we must consider its Relation to God, to our selves, to our Neighbours; its reference to this life, or the Lise to come. If it be a Virtue, we must seek what are the Principles of it, what are the Rules of it, what are the Rules of it, and what are the false Virtues that counterseit, and what are the real Vices that oppose it, what are the Evils which attend the Neglett of it, what are the Rewards of the Practice of it

both here and hereafter.

If the Subject be bistorical or a Matter of Far we may then enquire whether the Action we done at all; whether it was done in such a manus or by such Persons as is reported; at what In it was done; in what Place; by what Motive, a for what Design; what is the Evidence of the Fact; who are the Witnesses; what is their Character and Credibility; what Signs there are such a Fact; what concurrent Circumstances who may either support the Truth of it, or render doubtful.

In order to make due Enquiries into all the and many other Particulars which go towards complete and comprehensive Idea of any Being, Science of Ontology is exceeding necessary. The is what was wont to be called the first Part of M taphysicks in the Peripatetick Schools. It treats Being in its most general Nature, and of all its fections and Relations. I confess the old po Schoolmen have mingled a Number of useless tilties with this Science; they have exhausted the own Spirits, and the Spirits of their Readen many laborious and intricate Trifles, and for of their Writings have been fruitful of Na without Ideas, which hath done much Injury the facred Study of Divinity. Upon this Accor many of the Moderns have most unjustly and doned the whole Science at once, and thro Abundance of Contempt and Raillery upon very Name of Metaphysicks; but this Conten and Censure is very unreasonable, for this Scia separated from some Aristotelian Fooleries and lastic Subtilties is so necessary to a distinct a ception, folid Judgment, and just Reasoning many Subjects, that fometimes it is introduced a Part of Logick, and not without Reason. A those who utterly despise and ridicule it, et

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tray their own Ignorance, or will be supposed make their Wit and Banter a Resuge and Exfe for their own Laziness. Yet thus much I suld add, that the later Writers of Ontology are nerally the best on this account, because they we left out much of the ancient Jargon. See the rief Scheme of Ontology in the Philosophick Essays I.W.

Here let it be noted that it is neither useful, cessary, or possible to run thro' all the Modes, creumstances and Relations of every Subject we ke in Hand; but in Ontology we enumerate a reat Variety of them, that so a judicious Mind by choose what are those Circumstances, Relations and Properties of any Subject, which are most cessary to the present Design of him that speaks writes, either to explain, to illustrate, or to ove the Point.

As we arrive at the compleat Knowledge of an dea in all its Parts, by that Act of the Mind which is called Division, so we come to a compressive Conception of a Thing in its several Proseties and Relations, by that Act of the Mind which called Abstraction, i. e. we consider each single relation or Property of the Subject alone, and thus we do as it were withdraw and separate it in our Minds both from the Subject it self, as well as from other Properties and Relations in order to make a fuller Observation of it.

This Act of Abstraction is said to be twofold,

other Precisive or Negative.

Precisive Abstraction is when we consider those Things apart which cannot really exist apart; as when we consider a Mode without considering its Substance and Subject, or one essential Mode without another. Negative Abstraction is when we consider one Thing separate from another, which

may also exist without it; as when we concein of a Subject without conceiving of its accidents Modes or Relations; or when we conceive of on Accident without thinking of another; if I think of reading or writing without the express Idea fome Man, this is precifive Abstraction; or if think of the Attraction of Iron, without then press Idea of some particular magnetick Body. Bo when I think of a Needle without an Idea of Sharpness, this is negative Abstraction; and it is the fame when I think of its Sharpness without con dering its Length.

SECT. X.

Of the extensive Conception of Things, and Distribution.

S the Compleatness of an Idea refers to the veral Parts that compose it, and the Com prebension of an Idea includes its various Prop ties, so the Extension of an Idea denotes the val ous Sorts or Kinds of Beings to which the same la belongs: And if we would be fully acquaint with a Subject, we must observe

This fourth Rule to direct our Conceptions, w Conceive of Things in all their Extension, i. e. must fearch out the various Species or Special N tures which are contained under it as a Genus general Nature. If we would know the Nature an Animal perfectly, we must take Cognizance Beafts, Birds, Fishes and Infects, as well as Ma all which are contained under the general Natu and Name of Animal.

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As an integral Whole is distinguish'd into its seeral Parts by Division, so the Word Distribuion is most properly used when we distinguish an niversal Whole into its several Kinds or Species: And perhaps it had been better if this Word had een always confin'd to this Signification, tho' it must be confest, that we frequently speak of the Division of an Idea into its several Kinds, as well as into several Parts.

The Rules of a good Distribution are much the ame with those which we have before applied to Division, which may be just repeated again in the briefest manner, in order to give Examples to them.

I. Rule. Each Part fingly taken must contain less than the Whole, but all the Parts taken collectivey or together, must contain neither more nor less than the Whole; or as Logicians fometimes express it, the Parts of the Division ought to exhaust the whole Thing which is divided. So Medicine is justly distributed into Prophylactick, or the Art of preerving Health; and Therapeutick, or the Art of restoring Health; for there is no other fort of Medicine beside these two. But Men are not well distributed into tall or short, for there are some of a middle Stature.

II. Rule. In all Distributions we should first consider the larger and more immediate Kinds or Species or Ranks of Being, and not divide a Thing at once into the more minute and remote. A Genus should not at once be divided into Individuals, or even into the lowest Species, if there be a Species superior. Thus it would be very improper to divide Animal into Trout, Lobster, Eel, Dog, Bear, Eagle, Dove, Worm and Butterfly, for thefe

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these are inferior Kinds; whereas Animal ough first to be distributed into Man, Beast, Bird, Fil Insect: And then Beast should be distributed into Dog, Bear, &c. Bird into Eagle, Dove, &c. Fil into Trout, Eel, Lobster, &c.

It is irregular also to join any inferior Species in the same Rank or Order with the Superior; a if we would diftinguish Animals into Birds, Bear and Oysters, &c. it would be a ridiculous Distri

bution.

III. Rule. The feveral Parts of a Diffribution ought to be opposite; that is, one Species or Class of Beings in the same Rank of Division oughtm to contain or include another; fo Men ought m to be divided into the Rich, the Poor, the Learns and the Tall; for poor Men may be both learns

and tall, and fo may the rich.

But it will be objected, are not animated Bodin rightly distributed into Vegetative and Animal, of (as they are usually called) Sensitive? Now the San fitive contains the Vegetative Nature in it, for Animals grow as well as Plants. I answer that it this and all fuch Distributions the Word Vegeta tive fignifies merely Vegetative; and in this Sent Vegetative will be sufficiently opposite to Anima, for it cannot be faid of an Animal that it contain mere Vegetation in the Idea of it.

IV. Rule. Let not Subdivisions be too numb rous without Necessity; therefore I think Quan tity is better distinguished at once into a Line, Surface and a Solid, than to fay as Ramus does, that Quantity is either a Line, or a Thing lined; and Thing lined is either a Surface or a Solid.

V. Rule. Distribute every Subject according to the special Design you have in View, so far as is necessary or useful to your present Enquiry. Thus a Politician distributes Mankind according to their civil Characters, into the Rulers and the Ruled; and a Physician divides them into the Sick or the Healthy; but a Divine distributes them into Turks, Heathens, Jews, or Christians.

Here Note, that it is a very useless Thing to distribute any Idea into such Kinds or Members as have no different Properties to be spoken of; as it is mere trisling to divide right Angles into such whose Legs are equal, and whose Legs are unequal, for as to the mere right Angle they have no

different Properties.

VI. Rule. In all your Distributions observe the Nature of Things with great Exactness; and don't affect any particular Form of Distribution, as some Persons have done, by dividing every Genus into two Species, or into three Species; whereas Nature is infinitely various, and human Affairs and human Sciences have as great a Variety, nor is there any one Form of Distribution that will exactly suit with all Subjects.

Note, It is to this Doctrine of Distribution of a Genus into its several Species, we must also refer the Distribution of a Cause according to its several Effects, as some Medicines are heating, some are cooling; or an Effect when it is distinguished by its Causes, as Faith is either built upon divine Testimony or human. It is to this Head we refer particular artificial Bodies, when they are distinguished according to the Matter they are made of, as a Statue is either of Brass, of Marble, or Wood, Sc. and any other Beings when they are distin-

guish'd according to their End and Design, as the Furniture of Body or Mind is either for Ornament or Use. To this Head also we refer Subjects when they are divided according to their Modes or Accidents; as Men are either merry, or grave, or sad; and Modes when they are divided by their Subjects, as Distempers belong to the Fluids, or to the solid

Parts of the Animal.

It is also to this Place we reduce the Proposals of a Difficulty under its various Cases, whether it be in Speculation or Practice: As to shew the Reason of the Sun-beams burning Wood, whether it be done by a convex Glass or a concave; or to shew the Construction and Mensuration of Triangles, whether you have two Angles and a Side given, or two Sides and an Angle, or only three Sides. Here it is necessary to distribute or divide a Difficulty into all its Cases, in order to gain a perfect Knowledge of the Subject you contemplate.

It might be observed here, that Logicians have fometimes given a Mark or Sign to distinguish when it is an integral Whole, that is divided into its Parts or Members, or when it is a Genus, an universal Whole, that is distributed into its Species and Individuals. The Rule they give is this: Whenfoever the whole Idea can be directly and properly affirmed of each Part, as a Bird is an Animal, a Fish is an Animal, Bucephalus is a Horse, Peter is a Man, then it is a Distribution of a Genus into its Species, or a Species into its Individuals: But when the whole cannot be thus directly affirmed concerning every Part, then it is a Divifion of an integral into its feveral Species or Members; as we cannot fay the Head, the Breaft, the Hand or the Foot is an Animal, but we say the Head is a Part of the Animal, and the Foot is another Part. This

This Rule may hold true generally in corporeal Beings, or perhaps in all Substances: But when we say the Fear of God is Wisdom, and so is buman Civility: Criticism is true Learning, and so is Philosophy: To execute a Murderer is Justice, and to fave and defend the Innocent is Justice too: In these Cases it is not so easily determin'd, whether an integral Whole be divided into its Parts, or an universal into its Species: For the Fear of God may be called either one Part, or one Kind of Wisdom: Criticism is one Part, or one Kind of Learning: And the Execution of a Murderer may be called a Species of Justice, as well as a Part of it. Nor indeed is it a Matter of great Importance to determine this Controversy.

SECT. XI. Of an orderly Conception of Things.

HE last Rule to direct our Conceptions, is, I that we should rank and place them in a proper Method and just Order. This is of necessary Use to prevent Confusion; for as a Trader who never places his Goods in his Shop or Warehouse in a regular Order, nor keeps the Accounts of his buying and felling, paying and receiving in a just Method, is in utmost Danger of plunging all his Affairs into Confusion and Ruin; so a Student who is in the Search of Truth, or an Author or Teacher who communicates Knowledge to others, will very much obstruct his Design, and confound his own Mind or the Mind of his Hearers, unless he range his Ideas in just Order.

If we would therefore become successful Learners or Teachers, we must not conceive of Things in a confused Heap, but dispose our Ideas in some certain Method, which may be most easy and useful both for the Understanding and Memory; and be sure as much as may be to follow the Nature of Things, for which many Rules might be given, viz.

1. Conceive as much as you can of the Effentials of any Subject, before you consider its Acci.

dentals.

- 2. Survey first the general Parts and Properties of any Subject, before you extend your Thoughts to discourse of the particular Kind or Species of it.
- 3. Contemplate Things first in their own simple Natures, and afterward view them in Composition with other Things; unless it be your present Purpose to take a compound Being to pieces, in order to find out or to shew the Nature of it by searching and discovering of what Simples it is composed.

4. Confider the absolute Modes or Affections of any Being as it is in itself, before you proceed to confider it relatively, or to survey the various Relations in which it stands to other Be-

ings, &c.

Note, These Rules chiefly belong to the Method of Instruction which the Learned call Synthetick.

But in the Regulation of our Ideas there is feldom an absolute Necessity that we should place them in this or the other particular Method: It is possible in some Cases that many Methods may be equally good, that is, may equally assist the Understanding and the Memory: To frame a Method exquisitely accurate, according to the strict Nature of Things, and to maintain this Accuracy from the Beginning to the End of a Treatise, is a most rare and difficult Thing, if not impossible. But a larger Account of Method would be

C. VI. S. 12. The right Use of Reason. 135

be very improper in this Place, lest we anticipate what belongs to the fourth Part of Logick.

SECT. XII.

These five Rules of Conception exemplified.

IT may be useful here to give a Specimen of the five special Rules to direct our Conceptions, which have been the chief Subject of this long Chapter, and represent them practically in one View.

Suppose the Theme of our Discourse were the

Passions of the Mind.

Ist, To gain a clear and distinct Idea of Passion,

we must define both the Name and the Thing.

To begin with the Definition of the Name; we are not here to understand the Word Passion in its vulgar and most limited Sense, as it signifies merely Anger or Fury; nor do we take it in its most extensive philosophical Sense, for the sustaining the Astion of an Agent; but in the more limited philosophical Sense, Passions signify the various Affections of the Mind, such as Admiration, Love, or Hatred; this is the Desinition of the Name.

We proceed to the Definition of the Thing. Passion is defined a Sensation of some special Commotion in animal Nature, occasioned by the Mind's Perception of some Object suited to excite that Commotion. * Here the Genus or general Nature of Passion is a Sen-

Sation

^{*} Since this was written I have published a short Treatise of the Passions, wherein I have so far varied from this Definition as to call them Sensible Commotions of our rubole Nature, both Soul and Body, occasioned by the Mind's Perception of some Object, &c. I made this Alteration in the Description of the Passions in that Book chiefly to include in a more explicit manner the Passions of Desire and Aversion which are Acts of Volition rather than Sensations. Yet since some Commotions of animal Nature attend all the Passions, and since there is always a Sensation of these Commotions, I shall not change the Desinition I have written here: For this will agree to all the Passions whether they include any Act of Volition or not: Nor indeed is the Matter of any great Importance. Nov. 17. 1723.

Sation of some special Commotion in animal Nature; and herein it agrees with Hunger, Thirst, Pain, &c. The essential Difference of it is, that this Commotion arises from a Thought or Perception of the Mind, and hereby it is distinguished from Hunger, Thirst, or Pain.

2^{dly}, We must conceive of it compleatly, or survey the several Parts that compose it. These are (1.) The Mind's Perception of some Object. (2.) The consequent Russle or special Commotion of the Nerves, and Blood, and animal Spirits. And (3.)

The Sensation of this inward Commotion.

yarious Properties. The most essential Attributes that make up its Nature have been already mentioned under the foregoing Heads. Some of the most considerable Properties that remain are these, viz. That Passion belongs to all Mankind, in greater or lesser Degrees: It is not constantly present with us, but upon some certain Occasions: It is appointed by our Creator for various useful Ends and Purposes, viz. to give us Vigour in the Pursuit of what is good and agreeable to us, or in the Avoidance of what is hurtful: It is very proper for our State of Trial in this World: It is not utterly to be rooted out of our Nature, but to be moderated and governed according to Rules of Virtue and Religion, &c.

Athly, We must take Cognizance of the various Kinds of it, which is call'd an extensive Conception of it. If the Object which the Mind perceives be very uncommon, it excites the Passion of Admiration. If the Object appear agreeable it raises Love: If the agreeable Object be absent and attainable it is Desire: If likely to be obtain'd, it excites Hope: If unaitainable, Despair: If it be present and possess, it is the Passion of Joy: If loss, it excites Sorrow. If the Object be disagreeable,

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it causes in general Hatred or Aversion: If it be absent and yet we are in Danger of it, it raises our Fear: If it be present, it is Sorrow and Sadness, &c.

5^{thly}, All these Things and many more which go to compose a Treatise on this Subject must be placed in their proper Order: A slight Specimen of which is exhibited in this short Account of Passion, and which that admirable Author Descartes has treated of at large; tho' for want of sufficient Experiments and Observations in natural Philosophy, there are some sew Mistakes in his Account of animal Nature.

SECT. XIII.

An Illustration of these five Rules by Similitudes.

THUS we have brought the first Part of Logick to a Conclusion: And it may not be improper here to represent its Excellencies (so far as we have gone) by general Hints of its chief Defignand Use, as well as by a various Comparison of it to those Instruments which Mankind have invented for their several Conveniencies and Improvements.

The Design of Logick is not to furnish us with the perceiving Faculty, but only to direct and assist us in the Use of it: It doth not give us the Objects of our Ideas, but only casts such a Light on those Objects which Nature furnishes us with, that they may be the more clearly and distinctly known: It doth not add new Parts or Properties to Things, but it discovers the various Parts, Properties, Relations and Dependencies of one Thing upon another, and by ranking all Things under general and special Heads, it renders the Nature, or any of the Properties, Powers, and Uses of a thing

more easy to be found out, when we seek in what Rank of Beings it lies, and wherein it agrees with, and wherein it differs from others.

If any Comparisons would illustrate this, it may

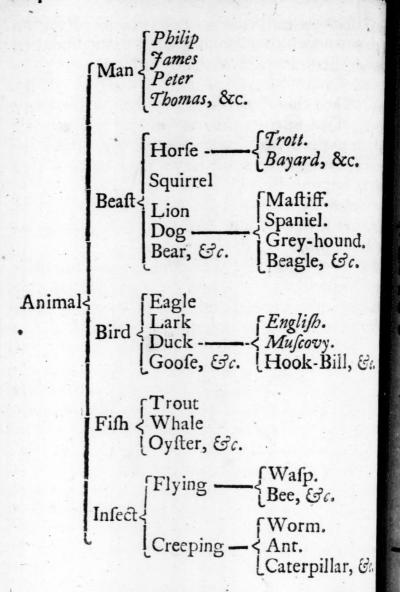
be thus represented.

- I. When Logick affists us to attain a clear and distinct Conception of the Nature of Things by Definition, it is like those Glasses whereby we behold such Objects distinctly, as by Reason of their Smallness or their great Distance appear in Consustance to the naked Eye: So the Telescope discovers to us distant Wonders in the Heavens, and shews the milky Way, and the bright cloudy Spot in a very dark Skie to be a Collection of little Stars, which the Eye unaffished beholds in mingled Confusion. So when Bodies are too small for our Sight to survey them distinctly, then the Microscope is at Hand for our Assistance, to shew us all the Limbs and Features of the most minute Animals, with great Clearness and Distinction.
- II. When we are taught by Logick to view a Thing compleatly in all its Parts by the Help of Division, it has the Use of an anatomical Knift, which dissects an animal Body, and separates the Veins, Arteries, Nerves, Muscles, Membranes, & and shews us the several Parts which go to the Composition of a compleat Animal.
- III. When Logick instructs us to survey an Object comprehensively in all the Modes, Properties, Relations, Faces and Appearances of it, it is of the same Use as a terrestrial Globe, which turning round on its Axis, represents to us all the variety of Lands and Seas, Kingdoms and Nations on the Surface of the Earth in a very short Succession of

ime shews the Situation and various Relation them to each other, and gives a comprehensive new of them in Miniature.

IV. When this Art teaches us to distribute any mensive Idea into its different Kinds or Species, it may be compared to the prismatick Glass, that recives the Sun-Beams or Rays of Light, which tem to be uniform when falling upon it, but it eparates and distributes them into their different inds and Colours, and ranks them in their proper Succession.

Or if we descend to Subdivisions and subordine Ranks of Being, then Distribution may also said to form the Resemblance of a natural Tree, derein the Genus or general Idea stands for the sot or Stock, and the several Kinds or Species, and idividuals, are distributed abroad, and represent-din their Dependence and Connection, like the several Boughs, Branches, and lesser Shoots. For instance, let Animal be the Root of a logical Tree, the Resemblance is seen by mere Inspection, tho the Root be not placed at the Bottom of the Page.



The same Similitude will serve also to illust the Division and Subdivision of an integral Whitinto its several Parts.

When Logick directs us to place all our lin a proper Method, most convenient both for struction and Memory, it doth the same Sen

s the Cases of well contrived Shelves in a large Lirary wherein Folio's, Quarto's, Octavo's, and lesser Tolumes, are disposed in such exact Order under the particular Heads of Divinity, History, Mabematicks, antient and miscellaneous Learning, &c., that the Student knows where to find every Book, and has them all as it were within his Command at once, because of the exact Order wherein they are placed.

The Man who has fuch Affistances as these at Hand, in order to manage his Conceptions and regulate his. Ideas, is well prepared to improve his knowledge, and to join these Ideas together in a regular manner by Judgment, which is the second operation of the Mind, and will be the Subject

of the fecond Part of Logick.

THE

SECOND PART

OF

LOGICK

Of Judgment and Proposition.

with Things by framing Ideas of the it proceeds to the next Operation, a that is, to compare these Ideas together, and join them by Affirmation, or disjoin them by agation, according as we find them to agree ord agree. This Act of the Mind is called Judgma as when we have by Perception obtained Ideas of Plato, a Philosopher, Man, Innocent, form these Judgments; Plato was a Philosophe no Man is innocent.

Some Writers have afferted, that Judgment of fifts in a mere Perception of the Agreement or la agreement of Ideas. But I rather think there is an a Judgment; for the wed operceive, or think perceive Ideas to agree or disagree, yet were sometimes refrain from judging or affenting to Perception, for fear lest the Perception show

t be sufficiently clear, and we should be mistan: And I am well assured at other Times, that are are Multitudes of Judgments formed, and a massement given to Ideas join'd or disjoined, bete there is any clear Perception whether they ree or disagree; and this is the Reason of so my false Judgments or Mistakes among Menth these Practices are a Proof that Judgment has sething of the Will in it, and does not merely continuous in Perception, since we sometimes judge (tho' happily) without perceiving, and sometimes we receive without immediate judging.

As an Idea is the Result of our Conception or Apbension, so a Proposition is the Effect of Judgnt. The foregoing Sentences which are Exples of the Act of Judgment are properly cal-

Propositions. Plato is a Philosopher, &c.

Here let us consider,

1. The general Nature of a Proposition, and the rts of which it is composed.

2. The various Divisions or Kinds of Proposi-

ns.

3. The Springs of false Judgment, or the Doctrine Prejudices.

4. General Directions to assist us in judging aright.

5. Special Rules to direct us in judging particular bjects.

Part !

CHAP. I.

Of the Nature of a Proposition, and its

A Proposition is a Sentence wherein two of more Ideas or Terms are join'd or disjoint by one Affirmation or Negation, as Plato was Philosopher: Every Angle is formed by two Lin meeting: No Man living on Earth can be completed happy. When there are never so many Ideas Terms in the Sentence, yet if they are joined disjoined merely by one single Affirmation or significant many they are properly called but one Proposition, they are properly called but one Proposition, they may be resolved into several Propositions which are implied therein, as will a pear hereafter.

In describing a Proposition, I use the Words as well as Ideas, because when mere like are joined in the Mind without Words, it is a ther called a Judgment; but when clothed will Words, it is called a Proposition, even the in the Mind only, as well as when it is express the

fpeaking or writing.

There are three Things which go to the Natural and Constitution of a Proposition (viz.) the &

jest, the Predicate and the Copula.

The Subject of a Proposition is that concerning which any thing is affirmed or denied: So Plan Angle, Man living on Earth, are the Subjects the foregoing Propositions.

The Predicate is that which is affirmed or detect of the Subject; so Philosopher is the Predicate of the first Proposition; formed by two Lines ming, is the Predicate of the second; capable of

g compleatly bappy, is the proper Predicate of ne third.

The Subject and Predicate of a Proposition taen together are called the Matter of it; for these

re the Materials of which it is made.

The Copula is the Form of a Proposition; it reresents the Act of the Mind affirming or denyg, and it is exprest by the Words, am, art, is, e, &c. or, am not, art not, is not, are not, &c.

It is not a Thing of Importance enough to reate a Dispute, whether the Words no, none, it, never, &c. which disjoin the Ideas or Terms a negative Proposition, shall be called a Part of the Subject, of the Copula, or of the Predicate. Ometimes perhaps they may seem most naturally to be included in one, and sometimes in another of these, tho' a Proposition is usually denominated affirmative or negative by its Copula, as herefter.

Note 1. Where each of these Parts of a Proosition is not express distinctly in so many Words,
et they are all understood and implicitly containd therein; as, Socrates disputed, is a compleat Proosition, for it signifies, Socrates was disputing. So,
dye, signifies I am dying. I can write, i. e. I am
ble to write. In Latin and Greek one single Word

many Times a compleat Proposition.

Note 2. These Words, am, art, is, &c. when they are used alone without any other Predicate ignify both the Ast of the Mind judging, which includes the Copula, and signify also astual Existence, which is the Predicate of that Proposition. So Rome is, signifies Rome is existent: There are some strange Monsters, that is, some strange Monsters are existent. Carthage is no more, i. e. Carbage has no Being.

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Note 3. The Subject and Predicate of a Proposition are not always to be known and distinguish'd by the placing of the Words in the Sentence, but by reslecting duly on the Sense of the Words, and on the Mind and Design of the Speaker or Writer: As if I say, in Africa there are man Lions, I mean many Lions are existent in Africa Many Lions is the Subject, and existent in Africa is the Predicate. It is proper for a Philosopher is understand Geometry; here the Word Proper is the Predicate, and all the rest is the Subject, except Is the Copula.

Note 4. The Subject and Predicate of a Proposition ought always to be two different Ideas or two different Terms; for where both the Term and Ideas are the same, it is called an identical Proposition, which is mere trisling, and cannot tend to promote Knowledge, such as, a Rule is a Rule

or a good Man is a good Man.

But there are some Propositions, wherein the Terms of the Subject and Predicate seem to be the same, yet the Ideas are not the same; nor can these be call'd purely identical or trisling Propositions; such as Home is Home; that is, Home is convenient or delightful Place; Socrates is Socrate still; that is, the Man Socrates is still a Philip pher: The Hero was not a Hero; that is, the Hondid not shew his Courage: What I have written, have written: that is, what I wrote I still appropriate and will not alter it: What is done, is done; that is, it cannot be undone. It may be easily observed in these Propositions the Term is equivocal, form the Predicate it has a different Idea from what is has in the Subject.

There are also some Propositions wherein the Terms of the Subject and Predicate differ, but the Ideas are the same; and these are not merely ideas.

tical or trifling Propositions; as, impudent is shameless; a Billow is a Wave; or Fluttus (in Latin) is a Wave; a Globe is a round Body. In these Propositions either the Words are explain'd by a Definition of the Name, or the Ideas by a Definition of the Thing, and therefore they are by no Means useless, when formed for this Purpose.

CHAP. II.

Of the various Kinds of Propositions.

Propositions may be distributed into various Kinds according to their Subject, their Copula, their Predicate, their Nature or Composition, their Sense, and their Evidence, which Distributions will be explained in the following Sections.

SECT. I.

Of universal, particular, indefinite, and singular Propositions.

PRopositions may be divided according to their Subject into universal and particular; this is usually call'd a Division arising from the Quantity.

An universal Proposition is when the Subject is taken according to the whole of its Extension; so if the Subject be a Genus or general Nature, it includes all its Species or Kinds: If the Subject be a Species, it includes all its Individuals. This Universality is usually signified by these Words, all, every, no, none, or the like; as, all Men must dye:

dye: No Man is Almighty: Every Creature bada

beginning.

A particular Proposition is when the Subject is not taken according to its whole Extension; that is, when the Term is limited and restrained to some one or more of those Species or Individuals, whose general Nature it expresses, but reaches not to all; and this is usually denoted by the Words, some, many, a few, there are which, &c. as some Birds can sing well: Few Men are truly wise: There are Parrots which will talk a hundred Things.

Under the general Name of universal Propositions, we may justly include those that are singular, and for the most Part those that are indefinite

alfo.

A singular Proposition is when the Subject is a singular or individual Term or Idea; as Descarted was an ingenious Philosopher: Sir Isaac Newton has far exceeded all his Predecessors: The Palace at Hampton-Court is a pleasant Dwelling: This Day is very cold. The Subject here must be taken according to the whole of its Extension, because being an individual, it can extend only to one, and it must therefore be regulated by the Laws of universal Propositions.

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An indefinite Proposition, is, when no Note, either of Universality or Particularity, is prefixed to a Subject, which is in its own Nature general; as a Planet is ever changing its Place: Angels are noble Creatures. Now this fort of Proposition, especially when it describes the Nature of Things, is usually counted universal also, and it supposes the Subject to be taken in its whole Extension; for if there were any Planet which did not change its Place, or any Angel that were not a noble

Creature, these Propositions would not be strictly

Yet in order to secure us against Mistakes in judging of universal, particular and indefinite Propositions, it is necessary to make these following Remarks.

I. Concerning universal Propositions.

Note 1. Universal Terms may either denote a metaphyfical, a phyfical, or a moral Universality.

A metaphysical, or mathematical Universality, is when all the Particulars contained under any general Idea have the fame Predicate belonging to them without any Exception whatfoever; or when the Predicate is so essential to the universal Subject, that it destroys the very Nature of the Subject to be without it; as, all Circles have a Centre and Circumference: All Spirits in their own Nature are immortal.

A physical or natural Universality, is, when according to the Order and common Course of Nature, a Predicate agrees to all the Subjects of that Kind, tho' there may be some accidental and preternatural Exceptions; as, all Men use Words to express their Thoughts, yet dumb Persons are excepted, for they cannot speak. All Beasts have four Feet, yet there may be some Monsters with five; or maim'd, who have but three.

A moral Universality, is when the Predicate agrees to the greatest part of the Particulars which are contained under the universal Subject; as all Negroes are stupid Creatures: All Men are govern'd by Affection rather than by Reason: All the old Romans loved their Country: And the Scripture uses this Language, when St. Paul tells us, The Cretes are always Liars.

Now it is evident, that a special or singular Conclusion cannot be infer'd from a moral Universality, nor always and infallibly from a physical one, tho' it may be always inferred from a Universality which is metaphysical, without any Danger, or Possibility of Mistake.

Let it be observed also, that usually we make little or no Distinction in common Language, between a Subject that is physically or metaphysically

universal.

Note 2. An universal Term is sometimes taken collectively for all its particular Ideas united together, and sometimes distributively, meaning each

of them fingle and alone.

Instances of a collective Universal are such as these: All these Apples will fill a Bushel: All the Hours of the Night are sufficient for Sleep: All the Rules of Grammar overload the Memory. In these Propositions it is evident, that the Predicate belongs not to the Individuals separately, but to the whole collective Idea; for we cannot affirm the same Predicate if we change the Word all into one, or into every, we cannot say one Apple or every Apple will fill a Bushel, &c. Now such a collective Idea when it becomes the Subject of a Proposition, ought to be esteemed as one single Thing, and this renders the Proposition singular or indefinite, as we shall shew immediately.

A distributive Universal will allow the Word all to be changed into every, or into one, and by this

Means is diffinguish'd from a collective.

Instances of a distributive Universal, are the most common on every Occasion; as, all Men are mortal: Every Man is a Sinner, &c. But in this sort of Universal there is a Distinction to be made, which follows in the next Remark.

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Note 3. When an universal Term is taken distributively, sometimes it includes all the Individuals contained in its inserior Species: as when! I say every Sickness has a Tendency to Death; I mean every Individual Sickness as well as every Kind. But sometimes it includes no more than merely each Species or Kind; as when the Evangelist says Christ healed every Disease, or every Disease was healed by Christ; that is, every kind of Disease. The first of these, Logicians call the Distribution of an Universal in singular generum; the last is a Distribution in genera singulorum. But either of them joined to the Subject render a Proposition universal.

Note 4. The Universality of a Subject is often restrained by a Part of the Predicate; as when we say all Men learn Wisdom by Experience: The universal Subject, all Men, is limited to signify only, all those Men who learn Wisdom. The Scripture also uses this fort of Language, when it speaks of all Men being justified by the Righteousness of one, Rom. v. 18. that is all Men who are

justified obtain it this way.

Observe here, that not only a metaphysical or natural, but a moral Universality also is oftentimes to be restrained by a part of the Predicate; as when we say, all the Dutch are good Seamen: All the Italians are subtle Politicians; that is, those among the Dutch who are Seamen, are good Seamen; and those among the Italians, who are Politicians, are subtle Politicians, i. e. they are generally so.

Note 5. The Universality of a Term is many times restrained by the particular Time, Place, Circumstance, &c. or the Design of the Speaker; as if we are in the City of London, and say, all the Weavers went to present their Petition; we mean

only all the Weavers who dwell in the City. So when it is said in the Gospel, all Men did marvel, Mark v. 20. it reaches only to all those Men who

beard of the Miracles of our Saviour.

Here also it should be observed, that a moral Universality is restrain'd by Time, Place, and o. ther Circumstances as well as a natural; so that by these Means the Word all sometimes does not extend to a tenth Part of those who at first might feem to be included in that Word.

One Occasion of these Difficulties and Ambiguities, that belong to universal Propositions, is the common Humour and Temper of Mankind, who generally have an Inclination to magnify their Ideas, and to talk roundly and universally concerning any thing they speak of; which has introduced universal Terms of Speech into Custom and Habit, in all Nations and all Languages, more than Nature or Reason would dictate; yet when this Custom is introduced, it is not at all improper to use this fort of Language in solemn and a cred Writings, as well as in familiar Discourse.

II. Remarks concerning indefinite Propositions.

Note 1. Propositions carrying in them univerfal Forms of Expression, may sometimes drop the Note of Univerfality, and become indefinite, and yet retain the same universal Sense, whether me taphyfical, natural or moral, whether collective or distributive.

We may give Instances of each of these.

Metaphysical; as, a Circle bas a Center and Circumference. Natural; as, Beafts have four Feel, Moral; as, Negroes are stupid Creatures. Collective; as, the Apples will fill a Bushel. Distributive; as, Men are mortal.

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Note 2. There are many Cases wherein a collective Idea is express in a Proposition by an indefinite Term, and that where it describes the Nature or Quality of the Subject, as well as when it declares some past Matters of Fast; as, Fir-trees set in good Order will give a charming Prospect; this must signify a Collection of Fir-Trees, for one makes no Prospect. In Matters of Fact this is more evident and frequent; as the Romans overcame the Gauls: The Robbers surrounded the Coach: The wild Geese slew over the Thames in the Form of a Wedge. All these are collective Subjects.

Note 3. In indefinite Propositions the Subject is often restrained by the Predicate, or by the special Time, Place, or Circumstances, as well as in Propositions which are expressy universal; as, the Chineses are ingenious Silk-Weavers, i. e. those Chineses, which are Silk-Weavers are ingenious at their Work. The Stars appear to us when the Twilight is gone. This can signify no more than

the Stars which are above our Horizon.

Note 4. All these Restrictions tend to reduce some indefinite Propositions almost into particular, as will appear under the next Remarks.

III. Remarks concerning particular Propositions.

Note 1. A particular Proposition may sometimes be exprest indefinitely, without any Note of Particularity presixt to the Subject; as, in times of Confusion Laws are not executed: Men of Virtue are disgraced, and Murtherers escape, i. e. some Laws, some Men of Virtue, some Murtherers: Unless we should call this Language a moral Universality, tho' I think it can hardly extend so far.

Note 2. The Words some, a few, &c. tho' they generally denote a proper Particularity, yet sometimes they express a collective Idea; as, some of the Ene-

mies beset the General around. A few Greeks would beat a thousand Indians.

I conclude this Section with a few general Re-

marks on this Subject (viz.)

Gen. Rem. I. Since universal, indefinite and particular Terms in the plural Number may either be taken in a collective or a distributive Sense, there is one short and easy Way to find when they are collective and when distributive (viz.) If the Plural Number may be chang'd into the singular, i. e. if the Predicate will agree to one single Subject, it is a distributive Idea; if not, it is collective.

Gen. Rem. II. Universal and particular Terms in the plural Number, such as, all, some, few, many, &c. when they are taken in their distributive Sense, represent several single Ideas; and when they are thus affixed to the Subject of a Proposition, render that Proposition universal or particular, according to the universality or particularity of the Terms affixed.

Gen. Rem. III. Universal and particular Terms in the plural Number, taken in their collective Sense, represent generally one collective Idea.

If this one collective Idea be thus represented (whether by universal or particular Terms) as the Subject of a Proposition which describes the Nature of a Thing, it properly makes either a singular or an indefinite Proposition; for the Words, all, some, a sew, &cc. do not then denote the Quantity of the Proposition, but are esteemed merely as Terms which connect the Individuals together in order to compose one collective Idea. Observe these Instances, all the Sycamores in the Garden would make a large Grove; i. e. this one Collection of Sycamores, which is a singular Idea Some

ome of the Sycamores in the Garden would make a fine rove. Sycamores would make a noble Grove: In hese last the Subject is rather indefinite than singuar. But it is very evident, that in each of these ropositions the Predicate can only belong to a ellective Idea, and therefore the Subject must be steemed a collective.

If this collective Idea (whether represented by niversal or particular Terms) be used in describg past Matters of Fast, then it is generally to be feemed a fingular Idea, and renders the Proposion fingular, as, all the Soldiers of Alexander made ut a little Army; A few Macedonians vanquished be large Army of Darius: Some Grenadiers in the amp plunder'd all the neighbouring Towns.

Now we have shewn before, that if a Propotion describing the Nature of Things has an indefite Subject, it is generally to be esteemed universal its propositional Sense: And if it has a fingular ubject, in its propositional Sense it is always rankt

ith Universals.

After all we must be forced to confess, that he Language of Mankind, and the Idioms of peech are so exceeding various, that it is hard to duce them to a few Rules; and if we would in a just and precise Idea of every universal, rticular and indefinite Expression, we must not ply confider the peculiar Idiom of the Lanuage, but the Time, the Place, the Occasion, e Circumstances of the Matter spoken of, and us penetrate as far as possible into the Design of e Speaker or Writer.

SECT. II.

Of affirmative and negative Propositions.

WHEN a Proposition is considered with a gard to its Copula, it may be divided in affirmative and negative; for it is the Copula is or disjoins the two Ideas. Others call this all vision of Propositions according to their Quality

An affirmative Proposition is when the Idea the Predicate is supposed to agree to the Idea the Subject, and is joined to it by the Word or are, which is the Copula, as all Men are so ners. But when the Predicate is not supposed agree with the Subject, and is disjoined from by the Particles is not, are not, &c. the Proposition is negative; as, Man is not innocent; or, Man is innocent. In an affirmative Proposition affert one Thing to belong to another, and, a were, unite them in Thought and Word: In gative Propositions we separate one Thing from other, and deny their Agreement.

It may feem fomething odd, that two Ideas Terms are faid to be disjoined as well as joined a Copula: But if we can but suppose the negative Propositions, it takes away the Harshness the Expression: and to make it yet softer, we may properly said to be joined in a Form of Words a Proposition, by connexive Particles in Gramm or Logick, tho' they are disjoined in their said Signification. Every Youth, who has less his Grammar, knows there are such Words as a Communication.

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Several Things are worthy our Notice on this bject.

It Note. As there are some Terms, or Words, I Ideas (as I have shewn before) concerning ich it is hard to determine whether they are ative or positive, so there are some Propositions icerning which it may be difficult to say, when they affirm or deny; as, when we say, Plato is no Fool: Cicero was no unskilful Orator: Cæmade no Expedition to Muscovy: An Oyster has part like an Eel: It is not necessary for a Physician to speak ench is needless. The Sense of these Propositions is very plain and easy, tho' Logicians might table perhaps a whole Day, whether they ould rank them under the Names of negative or irmative.

2^d Note. In Latin and English two Negatives ned in one Sentence make an Affirmative; as en we declare no Man is not mortal, it is the neas tho' we faid, Man is mortal. But in Greek d oftentimes in French two Negatives make but tronger Denial.

3^d Note. If the mere negative Term, Not, be add to the Copula of an universal affirmative Profition, it reduces it to a particular Negative; as, Men are not wise, fignifies the same as, some en are not wise.

4th Note. In all affirmative Propositions, the edicate is taken in its whole Comprehension; at is, every effential Part and Attribute of it is irmed concerning the Subject; as when I say, true Christian is an bonest Man, every Thing at belongs to Honesty is affirmed concerning a the Christian.

5th Note. In all negative Propositions the Pred cate is taken in its whole Extension; that is every Species and Individual that is contained the general Idea of the Predicate, is utterly dent concerning the Subject: So in this Proposition, Spirit is not an Animal, we exclude all forts a kinds, and particular Animals whatsoever from the Idea of a Spirit.

From these two last Remarks we may dent this Inserence, that we ought to attend to the tire Comprehension of our Ideas, and to the m versal Extension of them, as far as we have prop Capacity for it, before we grow too consident our affirming or denying any Thing, which m have the least Darkness, Doubt or Difficulty a tending it: It is the want of this Attention to betrays us into many Mistakes.

SECT. III.

Of the Opposition and Conversion of Proposition

A NY two Ideas being joined or disjoined various Forms will afford us feveral Profitions: All these may be distinguished according their Quantity and their Quality* into sour, what are markt or denoted by the Letters A, E, I, I thus:

A Universal Affirmative.
Universal Negative.
Particular Affirmative.
Particular Negative.
According to these old Latin Rhymes

The Reader should remember here, that a Proposition according a Quantity is called universal or particular, and according to its Quality, either affirmative or negative.

Asserit A, Negat E, verum generaliter Ambæ. Asserit I, Negat O, sed particulariter Ambo.

This may be exemplified by these two Ideas, a ne and a Tree.

A Every Vine is a Tree.

E No Vine is a Tree.

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I Some Vine is a Tree.

O Some Vine is not a Tree.

The Logicians of the Schools have written any large Trifles concerning the Opposition and nversion of Propositions. It will be sufficient re to give a few brief Hints of these Things, at the Learner may not be utterly ignorant of em.

Propositions which are made of the same Subst and Predicate are said to be opposite, when that hich is denied in one is affirmed in the other, her in whole or in part, without any Considetion whether the Propositions be true or no.

If they differ both in Quantity and Quality

ey are called Contradictory, as,

Tree.

Some Vine is not

Tree.

These can never be both true,
or both false at the same
Time.

If two Universals differ in Quality they are

Tree.

No Vine is a These can never be both true together, but they may be both false.

If two particular Propositions differ in Quality ey are Subcontraries, as,

I Some Vine is a These may be both true a gether, but they can new

Part

O Some Vine is not be both false.

Both particular and universal Propositions white agree in Quality but not in Quantity are call Subaltern, tho' these are not properly opposite, a

A Every Vine is a Tree. I Some Vine is a Tree.

Or thus,

E No Vine is a Tree.

O Some Vine is not a Tree.

The Canons of fubalternate Propositions a usually reckoned these three (viz.) (1.) If an usersal Proposition be true, the particular will true also, but not on the contrary. And (2.) If particular Proposition be false, the universal makes be false too, but not on the contrary. (3.) So altern Propositions, whether universal or particular, may sometimes be both true and sometime both salse.

The Conversion of Propositions is when the State and Predicate change their Places with he servation of the Truth. This may be done with constant Certainty in all universal Negatives at particular Affirmatives; as no Spirit is an Animal may be converted, no Animal is a Spirit; at some tree is a Vine, may be converted, some his a Tree. But there is more formal Triflings this fort of Discourse than there is of solid in provement, because this fort of Conversion are merely from the Form of Words, as connected a Proposition, rather than from the Matter.

Yet it may be useful to observe, that there as some Propositions, which by Reason of the like or Matter of which they are composed may be converted with constant Truth: Such are those

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ropositions whose Predicate is a nominal or real estinition of the Subject, or the Difference of or a Property of the sourth Kind, or a supertive Degree of any Property or Quality whatever, or in short, wheresoever the Predicate of the Subject have exactly the same Extension the same Comprehension; as, every Vine is a stree bearing Grapes; and every Tree bearing Grapes a Vine: Religion is the truest Wisdom; and the ruest Wisdom is Religion: Julius Cæsar was the off Emperor of Rome; and the first Emperor of some was Julius Cæsar. These are the Propositions which are properly convertible, and they recalled reciprocal Propositions.

SECT. IV.

Of pure and modul Propositions.

A Nother Division of Propositions among the scholastick Writers is into pure and modal. This may be called (for Distinction sake) a Divi-

on according to the Predicate.

When a Proposition merely expresses that the redicate is connected with the Subject, it is call'd pure Proposition; as, every true Christian is an bonest Man. But when it includes also the Way and Manner wherein the Predicate is connected with the Subject, it is call'd a modal Proposition, s, when I say, it is necessary that a true Christian bould be an bonest Man.

Logical Writers generally make the Modality of this Proposition to belong to the Copula, because it shews the Manner of the Connection between Subject and Predicate. But if the Form of the Sentence as a logical Proposition be duly consider'd, the Mode itself is the very Predicate

of the Proposition, and it must run thus: Thai true Christian should be an honest Man is a necessar Thing, and then the whole primary Proposition included in the Subject of the modal Proposition,

There are four Modes of connecting the Predi cate with the Subject, which are usually reckon ed up on this Occasion (viz.) Necessity and Contin gency which are two Opposites, Possibility and In possibility which are also Opposites; as, it is no ceffary that a Globe should be round: That a Glob be made of Wood or Glass is an unnecessary or contingent Thing: It is impossible that a Globe should be square: It is possible that a Globe may be maded Water.

With Regard to these modal Propositions which the Schools have introduced, I would make the two Remarks.

Remark 1. These Propositions in English an formed by the Resolution of the Words, must be might not be, can be, and cannot be, into those more explicate Forms of a logical Copula and Predicate, is necessary, is contingent, is possible, is impossible: For it is necessary that a Globe should be round, fignifies no more than that a Globe must be round.

Remark 2. Let it be noted that this quadruple Modality is only an Enumeration of the natural Modes or Manners wherein the Predicate 8 connected with the Subject: We might also de scribe several moral and civil Modes of connecting two Ideas together (viz.) Lawfulness and Unlaw fulness, Conveniency and Inconveniency, &c. whence we may form such modal Propositions as these. is unlawful for any Person to kill an innocent Man: It is lawful for Christians to eat Flesh in Lent: 9 tell all that we think is inexpedient: For a Man to be affable to his Neighbour is very convenient, &c.

There are several other Modes of speaking whereby a Predicate is connected with a Subject: such as, it is certain, it is doubtful, it is probable, it is improbable, it is agreed, it is granted, it is said by the Ancients, it is written, &c. all which will

form other kinds of modal Propositions.

But whether the Modality be natural, moral, &c. yet in all these Propositions it is the Mode is the proper Predicate, and all the rest of the Proposition, except the Copula (or Word is) belongs to the Subject; and thus they become pure Propositions of a complex Nature, of which we shall treat in the next Section, so that there is no great Need of making Modals a distinct Sort.

There are many little Subtilties which the Schools acquaint us with concerning the Conversion and Opposition, and Equipollence of these modal Propositions, suited to the Latin or Greek
Tongues, rather than the English, and sit to pass
away the Idle Time of a Student, rather than to

enrich his Understanding.

SECT. V.

Of fingle Propositions, whether simple or complex.

WHEN we consider the Nature of Propositions, together with the Formation of them, and the Materials whereof they are made, we di-

vide them into fingle and compound.

A fingle Proposition is that which has but one Subject and one Predicate; but if it has more Subjects or more Predicates, it is called a compound Proposition, and indeed it contains two or more Propositions in it.

A single

A fingle Proposition (which is also called cate. gorical) may be divided again into fimple and complex *.

A purely simple Proposition is that whose Subject and Predicate are made up of fingle Terms; as, Virtue is desirable: Every Penitent is pardon'd: No

Man is innocent.

When the Subject, or Predicate, or both, are made up of complex Terms, it is called a complex Proposition; as every sincere Pentient is pardon'd; Virtue is desirable for its own Sake: No Man alive

is perfectly innocent.

If the Term which is added to the Subject of a complex Proposition be either effential or any Way necessary to it, then it is called explicative, for it only explains the Subject: as every Mortal Man is a Son of Adam. But if the Term added to make up the complex Subject does not necesfarily or constantly belong to it, then it is determinative, and limits the Subject to a particular part of its Extension; as, every pious Man shall be bappy. In the first Proposition the Word mortal is merely explicative: in the fecond Proposition the Word pious is determinative.

Here note, that whatfoever may be affirmed or denied concerning any Subject with an explicative Addition, may be also affirmed or denied of that Subject without it; as we may boldly fay, every Man is a Son of Adam, as well as, every mortal Man: But it is not fo, where the Addition is determinative, for we cannot fay, every Manshall be

bappy, tho' every pious Man shall be so.

^{*} As simple Ideas are opposed to complex, and single Ideas to compound, in Propositions are distinguished in the same Manner: The English Tonguein this Respect having some Advantage above the learned Languages, which have no usual Word to distinguish single from simple.

In a complex Proposition the Predicate or Subject is fometimes made complex by the Pronouns, who, which, whose, to whom, &c. which make another Proposition; as every Man who is pious, shall be faved: Julius, whose Sirname was Cafar, overcame Pompey: Bodies which are transparent, bave many Pores. Here the whole Proposition is called the primary or chief, and the additional Proposition is called an incident Proposition. But it is ftill to be esteem'd in this Case merely as a part of the complex Term; and the Truth or Falfhood of the whole complex Proposition is not to be judged by the Truth or Falshood of the incident Proposition, but by the Connection of the whole Subject with the Predicate. For the incident Proposition may be false, and absurd, or impossible, and yet the whole complex Proposition may be true, as, a Horse which has Wings, might fly over the Thames.

Beside this Complexion which belongs to the Subject or Predicate, logical Writers use to say, there is a Complexion which may fall upon the Copula also: But this I have accounted for in the Section concerning modal Propositions; and indeed it is not of much Importance whether it were placed there or here.

SECT. VI.

Of compound Propositions.

A Compound Proposition is made up of two or more Subjects or Predicates, or both; and it contains in it two or more Propositions, which are either plainly exprest, or conceal'd and imply'd.

The first fort of compound Propositions are those wherein the Composition is exprest and evident, and they are distinguish'd into these six Kinds, (viz.) Copulative, Disjunctive, Conditional, Caufal, Relative and Discretive.

I. Copulative Propositions are those which have more Subjects or Predicates connected by affirmative or negative Conjunctions; as, Riches and Ho. nours are Temptations to Pride: Cæsar conquer'd the Gauls and the Britons: Neither Gold nor Jewels will purchase Immortality. These Propositions are evidently compounded, for each of them may be resolved into two Propositions, (viz.) Riches are Temptations to Pride; and Honour is a Temptation to Pride; and so the rest.

The Truth of copulative Propositions depends upon the Truth of all the Parts of them; for if Cafar had conquered the Gauls, and not the Britons, or the Britons and not the Gauls, the second copulative Proposition had not been true.

Here note, those Propositions, which cannot be resolved into two or more simple Propositions, are not properly copulative, tho' two or more Ideas be connected and coupled by fuch Conjunctions, either in the Subject or Predicate; as, two and three make five: Majesty and Meekness don't often meet: The Sun, Moon, and Stars are not all to be seen at once. Such Propositions are to be esteem'd merely complex, because the Predicate cannot be affirmed of each fingle Subject, but only of all of them together as a collective Subject.

II. Disjunctive Propositions are when the Parts are disjoined or opposed to one another by difjunctive Particles; as, it is either Day or Night: The

The Weather is either shining or rainy: Quantity is

either Length, Breadth, or Depth.

The Truth of Disjunctives depends on the necessary and immediate Opposition of the Parts; therefore only the last of these Examples is true; but the two first are not strictly true, because Twilight is a Medium between Day and Night; and dry, cloudy Weather is a Medium between shining and raining.

III. Conditional or bypothetical Propositions are those whose Parts are united by the conditional Particle if; as, If the Sun be fixt, the Earth must move: If there be no Fire, there will be no Smoke.

Note, The first Part of these Propositions, or that wherein the Condition is contained, is called the antecedent, the other is called the consequent.

The Truth of these Propositions depends not at all on the Truth and Falshood of their two Parts, but on the Truth of the Connection of them; for each part of them may be false, and yet the whole Proposition true; as, if there be no Providence, there will be no future Punishment.

IV. Causal Propositions are where two Propositions are joined by causal Particles; as, Houses were not built that they might be destroyed: Rehoboam was unhappy because he followed evil Counsel.

The Truth of a causal Proposition arises not from the Truth of the Parts, but from the causal Influence that the one Part of it has upon the other; for both Parts may be true, yet the Proposition false, if one Part be not the Cause of the other.

Some Logicians refer reduplicative Propositions to this Place, as Men, considered as Men, are rational Creatures, i. e. because they are Men.

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V. Relative Propositions have their Parts joined by fuch Particles, as express a Relation or Com. parison of one Thing to another; as, when you are filent I will speak: As much as you are worth. so much you shall be esteemed: As is the Father, so is the Son: Where there is no Tale-Bearer, Contention will cease.

These are very much akin to conditional Propo. fitions, and the Truth of them depends upon the

Tustness of their Connection.

VI. Discretive Propositions are such wherein va. rious and feemingly opposite Judgments are made whose Variety or Distinction is noted by the Particles, but, tho', yet, &c. as Travellers may change their Climate but not their Temper: Job was Pati-

ent, tho' his Grief was great.

The Truth and Goodness of a discretive Proposition depends on the Truth of both Parts, and their Contradistinction to one another; for the both Parts should be true, yet if there be no feeming Opposition between them, it is an use less Assertion, tho' we cannot call it a false one; as, Descartes was a Philosopher, yet he was a Frenchman: The Romans were valiant, but the spoke Latin; both which Propositions are ridiculous, for want of a feeming Opposition between the Parts.

Since we have declared wherein the Truth and Falshood of these compound Propositions consist, it is proper also to give some Intimations how any of these Propositions when they are false may be opposed or contradicted.

All compound Propositions, except Copulativa and Discretives, are properly denied or contradicted when the Negation affects their conjunctive Particles; as, if the disjunctive Proposition asferts, sets, it is either Day or Night: The Opponent says, It is not either Day or Night, or it is not necessary that it should be either Day or Night, so the hypothetical Proposition is denied by saying, it does not follow that the Earth must move if the Sun be fix'd.

A disjunctive Proposition may be contradicted also by denying all the Parts, as, it is neither Day

nor Night.

And a causal Proposition may be denied or opposed indirectly and improperly, when either part of the Proposition is denied; and it must be false if either Part be false: But the Design of the Proposition being to shew the causal Connection of the two Parts, each Part is supposed to be true, and it is not properly contradicted as a causal Proposition, unless one Part of it be denied to be the Cause of the other.

As for Copulatives and Discretives, because their Truth depends more on the Truth of their Parts, therefore these may be opposed or denied as many Ways, as the Parts of which they are compos'd may be denied; so this copulative Proposition, Riches and Honour are Temptations to Pride, may be denied by saying, Riches are not Temptations, tho' Honour may be: or, Honour is not a Temptation, tho' Riches may be: or neither Riches nor Honour are Temptations, &c.

So this discretive Proposition, Job was patient, tho' his Grief was great, is denied by saying, Job was not patient, tho' his Grief was great: or, Job was patient, but his Grief was not great: or Job

was not patient, nor was his Grief great.

We proceed now to the second fort of compound Propositions, (viz.) such whose Composition is not expressed, but latent or conceal'd, yet a small Attention will find two Propositions included in them. Such are these that follow;

I Exclusives;

1. Exclusives; as, The pious Man alone is has py. It is only Sir Isaac Newton could find out in Philosophy.

2. Exceptives; as, None of the Ancients but Plan well defended the Soul's Immortality. The Protestant

worship none but God.

3. Comparatives; as, Pain is the greatest A fliction. No Turk was fiercer than the Spanian at Mexico.

Here note, that the comparative Degree don not always imply the Positive; as if I say, A Fin is better than a Knave; this does not affirm the Folly is good, but that it is a less Evil than Kn very.

4. Inceptives and Defitives, which relate to the beginning or ending of any thing; as, the Lan Tongue is not yet forgotten. No Man before Orpheu wrote Greek Verse; Peter Czar of Muscovy bega

to civilize his Nation.

To these may be added Continuatives; as Rom remains to this Day, which includes at least two Propositions, (viz.) Rome was, and Rome is.

Here let other Authors spend Time and Pain in giving the precise Definitions of all these som of Propositions, which may be as well understood by their Names and Examples: Here let then tell what their Truth depends upon, and hor they are to be opposed or contradicted; but moderate Share of common Sense, with a Review of what is said on the former Compounds, w fuffice for all these Purposes without the Formal ty of Rules.

SECT. VII. Of true and false Propositions.

Ropolitions are next to be considered according to their Sense or Signification, and thus ey are distributed into true and false. A true oposition represents Things as they are in themves; but if Things are represented otherwise in they are in themselves, the Proposition is

Or we may describe them more particularly is; a true Proposition joins those Ideas and Terms gether whose Objects are joined and agree, or disjoins those Ideas and Terms, whose Objects agree or are disjoin'd; as, every Bird has Wings, Brute is not immortal.

A false Proposition joins those Ideas or Terms of Objects disagree, or it disjoins those whose jects agree; as Birds have no Wings, Brutes immortal.

Note, It is impossible that the same Proposition uld be both true and false at the same Time, the same Sense, and in the same Respect; besse a Proposition is but the Representation of Agreement or Disagreement of Things: Now impossible that the same Thing should be and not or that the same Things should agree and not ee at the same Time and in the same Respect. This sirst Principle of human Knowledge.

Yet some Propositions may seem to contradict another, tho' they may be both true, but in erent Senses or Respects or Times: as, Man immortal in Paradise, and Man was mortal in adise. But these two Propositions must be i'd to different Times; as, Man before bis Fall immortal, but at the Fall he became mortal.

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So we may fay now, Man is Mortal, or Manimmortal, if we take these Propositions in different Respects; as, Man is an immortal Creature as to his Soul, but mortal as to his Body. A great Variety of Difficulties and seeming Contradictions both in holy Scripture and other Writings, may be solved and explained in this manner.

The most important Question on this Subjet is this, What is the Criterion or distinguishing Man of Truth? How shall we know when a Proposition is really true or false? There are so many salse by pearances of Truth in the World, so many false by pearances of Truth, that some Sects have deduced there is no Possibility of distinguishing sand from Falshood; and therefore they have abandon all Pretences to Knowledge, and maintain'd for

nuously that nothing is to be known.

The first Men of this Humour made themselve famous in Greece, by the Name of Scepticks; the is, Seekers: They were also called Academia borrowing their Name from Academia, the School or Place of Study. They taught that Things are uncertain, tho' they allow'd that for are more probable than others. After these and the Sect of Pyrrbonicks, named from Pyrrhoth Mafter, who would not allow one Proposition be more probable than another; but profes'd all Things were equally uncertain. Now all the Men (as an ingenious Author expresses it) rather to be called a Sect of Liars than Phil phers, and that Censure is just for two Realow (1.) Because they determined concerning em Proposition that it was uncertain, and belief that as a certain Truth, while they professed the was nothing certain, and that nothing could determined concerning Truth or Falshood; thus their very Doctrine gave itself the Lie. Becau

ecause they judged and acted as other Men did the common Affairs of Life; they would neier run into Fire nor Water, tho' they professed norance and Uncertainty, whether the one ould burn, or the other drown them.

There have been some in all Ages who have o much affected this Humour, who dispute ainst every thing, under Pretence that Truth has certain Mark to distinguish it. Let us therefore quire, what is the general Criterion of Truth? nd in order to this, it is proper to consider what the Reason why we affent to those Propositions, hich contain the most certain and indubitable ruths, such as these, the Whole is greater than a

art; two and three make five.

The only Reason why we believe these Proposions to be true, is because the Ideas of the Substand Predicates appear with so much Clears and Strength of Evidence to agree to each her, that the Mind cannot help discerning the greement, and cannot really doubt of the Truth them, but is constrained to judge them true. when we compare the Ideas of a Circle and a siangle, or the Ideas of an Oyster and a Buttersty, see such an evident Disagreement between em, that we are sure that a Buttersty is not an offer; nor is a Triangle a Circle. There is noting but the Evidence of the Agreement or Distreement between two Ideas, that makes us afm or deny the one or the other.

Now it will follow from hence that a clear and finct Perception or full Evidence of the Agreement d Disagreement of our Ideas to one another, or to ings, is a certain Criterion of Truth: For since r Minds are of such a Make, that where the Evince is exceeding plain and strong, we cannot thhold our Assent; we should then be necessa-

rily exposed to believe Falshood, if compleat Evidence should be found in any Propositions that are not true. But surely the God of persect Wildom, Truth and Goodness would never oblighis Creatures to be thus deceived; and therefore he would never have constituted us of such a Frame, as would render it naturally impossibles

guard against Error.

Another Consequence is naturally derived from the former; and that is, that the only Realing why we fall into a Mistake is because we are impatient to form a Judgment of Things before we have a clear and evident Perception of their Agreement or Disagreement; and if we will make Hast to judge while our Ideas are obscure and consust or before we see whether they agree or disagree, we shall plunge our selves into perpetual Erron See more on this Subject in an Essay on the Freedom of Will in God and Man: Publish'd 1732. See p. 13. Sold by J. Roberts in Warwick-Lane, and R. Hett in the Poultry.

Note, What is here afferted concerning the Note ceffity of clear and distinct Ideas refers chiefly Propositions, which we form our felves by wo own Powers: As for Propositions which we rive from the Testimony of others, they will be at

counted for in Chap. IV.

SECT. VIII.

Of certain and dubious Propositions, of Knowledge and Opinion.

Since we have found that Evidence is the grade of Criterion and the fure Mark of Truth; the leads us directly to confider Propositions according to their Evidence; and here we must take Note both of the different Degrees of Evidence, and the different Kinds of it.

Propositions according to their different Degrees Fevidence are distinguished into certain and duious *.

Where the Evidence of the Agreement or Difgreement of the Ideas is so strong and plain, that re cannot forbid nor delay our Assent; the Proosition is called certain, as, every Circle bath a lentre; the World did not create it self. An Assent such Propositions is honour'd with the Name of Inowledge.

But when there is any Obscurity upon the greement or Disagreement of the Ideas, so that he Mind does not clearly perceive it, and is not ompell'd to assent or dissent, then the Proposion, in a proper and philosophical Sense, is called subtful or uncertain; as, the Planets are inhabited; he Souls of Brutes are mere Matter; the World will not stand a thousand Years longer; Dido built he City of Carthage, &c. Such uncertain Propotions are called Opinions.

When we consider our selves as Philosophers or earchers of Truth, it would be well if we always inspended a sull Judgment or Determination about my thing, and made farther Inquiries, where this plain and perfect Evidence is wanting; but we re so prone of our selves to judge without sull Evidence, and in some Cases the Necessity of Action in the Affairs of Life constrains us to judge and determine upon a tolerable Degree of Evidence, that we vulgarly call those Propositions

^{*} It may be objected, that this Certainty and Uncertainty being only in the lind, the Division belongs to Propositions rather according to the Degrees our Assent, than the Degrees of Evidence. But it may well be answered, at the Evidence here intended is that which appears so to the Mind, and of the mere Evidence in the Nature of Things: Besides (as we shall shew amediately) the Degree of Assent ought to be exactly proportionable to the gree of Evidence: and therefore the Difference is not great, whether Prositions be called certain or uncertain, according to the Measure of Evidence, of Assent.

Reason to doubt of them, tho' the Evidence

not compleat and resistless.

Certainty, according to the Schools, is diffinguished into Objective and Subjective. Objective Certainty is when the Proposition is certainly in it felf; and Subjective, when we are certain the Truth of it. The one is in Things, the other is in our Minds.

But let it be observed here, that every Proposition in it self is certainly true or certainly false. For the Doubtfulness or Uncertainty seems to be a Medium between certain Truth and certain Falshow in our Minds, yet there is no such Medium in Things themselves; no, not even in suture Events for now at this time it is certain in it self, the Midsummer-Day seven Years hence will be served or it is certain it will be cloudy, the we are uncertain and utterly ignorant what fort of Day it will be: This Certainty of distant Futurities is known to God only.

Uncertain or dubious Propositions, i. e. Opinion, are distinguish'd into probable or improbable.

When the Evidence of any Proposition is greater than the Evidence of the contrary, then its probable Opinion: Where the Evidence and Arguments are stronger on the contrary Side, we all it improbable. But while the Arguments on the there is the feem to be equally strong, and the Endence for and against any Proposition appeared equal to the Mind, then in common Language we call it a doubtful Matter. We also call it a doubtful ous or doubtful Proposition when there are no Arguments on either Side, as next Christmas In will be a very sharp Frost. And in general all the Propositions are doubtful, wherein we can perceive no sufficient Marks or Evidences of Irus.

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or Falshood. In such a Case the Mind which is earching for Truth ought to remain in a State of Doubt and Suspence, until superior Evidence on one Side or the other incline the Balance of the Judgment, and determine the Probability or Cer-

ainty to one Side.

A great many Propositions which we generally believe or disbelieve in human Assairs, or in the ciences, have very various Degrees of Evidence, which yet arise not to complete Certainty either of Truth or Falshood. Thus it comes to pass hat there are such various and almost infinite Degrees of Probability and Improbability. To a weak Probability we should give a weak Assent; and a ronger Assent is due where the Evidence is greater, and the Matter more probable. If we proportion ar Assent in all Things to the Degree of Evidence, we do the utmost that human Nature is capable of a rational Way to secure it self from Error.

SECT IX.

Of Sense, Consciousness, Intelligence, Reason, Faith and Inspiration.

A FTER we have considered the Evidence of Propositions in the various Degrees of it, we come to survey the several Kinds of Evidence, or the different Ways whereby Truth is let into the Mind, and which produce accordingly several tinds of Knowledge. We shall distribute them not these six, (viz.) Sense, Consciousness, Intelligence, Reason, Faith, and Inspiration, and then ditinguish the Propositions which are derived from hem.

I. The Evidence of Sense is when we frame a Proposition according to the Dictate of any of our Senses; so we judge that Grass is green; that a Trumpet gives a pleasant Sound; the Fire burns Wood; Water is soft, and Iron is hard; for we have seen, heard or felt all these. It is upon this Evidence of Sense that we know and believe the daily Occurrences in human Life; and almost all the Histories of Mankind that, are written by Eye or Ear-Witnesses are built upon this Principle.

Under the Evidence of Sense we don't only include that Knowledge which is derived to us by our outward Senses of Hearing, Seeing, Feeling, Tasting and Smelling, but that also which is derived from the inward Sensations and Appetites of Hunger, Thirst, Ease, Pleasure, Pain, Weariness, Rest, &c. and all those Things which belong to the Body; as Hunger is a painful Appetite, Light is pleasant: Rest is sweet to the weary Limbs.

Propositions which are built on this Evidence may be named sensible Propositions, or the Distates

of Sense.

II. As we learn what belongs to the Body by the Evidence of Sense, so we learn what belongs to the Soul by an inward Consciousness, which may be called a fort of internal Feeling, or spiritual Sensation of what passes in the Mind; as, I think before I speak; I desire large Knowledge; I suspect my own Practice, I studied hard to Day; my Conscience bears Witness of my Sincerity; my Soul hates vain Thoughts; Fear is an uneasy Passion; long Meditation on one thing is tiresome.

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Thus it appears that we obtain the Knowledge of a Multitude of *Propositions*, as well as of single Ideas by those two Principles which Mr. Locke calls Sensation and Reflection: One of them is a fort of Consciousness of what affects the Body, and the other is a Consciousness of what passes in the Mind.

Propositions which are built on this internal Consciousness, have yet no particular or distinguish-

ing Name affigned to them.

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III. Intelligence relates chiefly to those abstracted Propositions which carry their own Evidence with them, and admit no Doubt about them. Our Perception of this Self-Evidence in any Proposition is called Intelligence. It is our Knowledge of those first Principles of Truth which are (as it were) wrought into the very Nature and Make of our Minds: They are so evident in themselves to every Man who attends to them, that they need no Proof. It is the Prerogative and peculiar Excellence of these Propositions, that they can scarce ever be prov'd or denied: They cannot easily be proved, because there is nothing supposed to be more clear or certain, from which an Argument may be drawn to prove They cannot well be denied, because their own Evidence is fo bright and convincing, that as foon as the Terms are understood the Mind necessarily affents: Such are these, Whatsever afteth bath a Being; Nothing has no Properties; a Part is less than the Whole; Nothing can be the Cause of itself.

These Propositions are called Axioms, or Maxims, or first Principles; these are the very Foundations of all improved Knowledge and Reasonings, and on this Account these have been thought to be innate Propositions, or Truths born with us.

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Some suppose that a great part of the Know. ledge of Angels and human Souls in the separate State is obtained in this manner, (viz.) by such an immediate View of Things in their own Nature, which is called *Intuition*.

IV. Reasoning is the next fort of Evidence, and that is when one Truth is infer'd or drawn from others by natural and just Methods of Argument; as, if there be much Light at Midnight, I infer, it proceeds from the Moon, because the Sun is under the Earth. * If I see a Cottage in a Forest, I conclude, some Man has been there and built it. Or when I survey the Heavens and Earth, this gives Evidence to my Reason, that there is a God who made them.

The Propositions which I believe upon this kind of Evidence, are called Conclusions, or rational Truths, and the Knowledge that we gain this Way

is properly call'd Science.

Yet let it be noted, that the Word Science is usually applied to a whole Body of regular or methodical Observations or Propositions which learned Men have formed concerning any Subject of Speculation, deriving one Truth from another by If this Knowledge chiefa Train of Arguments. ly directs our Practice, it is usually called an Art: And this is the most remarkable Distinction between an Art and a Science, (viz.) the one refers chiefly to Practice, the other to Speculation. tural Philosophy or Physicks, and Ontology are Saences; Logick and Rhetorick are call'd Arts; but Mathematicks include both Art and Science; for they have much of Speculation, and much of Practice in them.

^{*} Note, Since this Book was written we have feen fo many Appearances of the Aurora Borealis as reduces this inference only to a Probability.

Observe here, that when the Evidence of a Proposition derived from Sense, Consciousness, Intelligence, or Reason is firm and indubitable, it produces such an Assent as we call a natural Certainty.

V. When we derive the Evidence of any Proposition from the Testimony of others, it is called the Evidence of Faith; and this is a large Part of our Knowledge. Ten thousand Things there are which we believe merely upon the Authority or Credit of those who have spoken or written of them. It is by this Evidence that we know there is such a Country as China, and there was such a Man as Cicero who dwelt in Rome. It is by this that most of the Transactions in human Life are managed: We know our Parents and our Kindred by this Means, we know the Persons and Laws of our present Governors, as well as Things that are at a vast Distance from us in foreign Nations, or in ancient Ages.

According as the Persons that inform us of any thing are many or few, are more or less wise, and faithful, and credible, so our Faith is more or less firm or wavering, and the *Proposition believed* is either certain or doubtful; but in Matters of Faith, an exceeding great Probability is call'd a moral

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Faith is generally distinguish'd into Divine and Human, not with Regard to the Propositions that are believed, but with Regard to the Testimony upon which we believe them. When God reveals any thing to us, this gives us the Evidence of Divine Faith; but what Man only acquaints us with produces a buman Faith in us; the one, being built upon the Word of Man, arises but to moral Certainty; but the other being founded on

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the Word of God arises to an absolute and infallible Assurance, so far as we understand the Meaning of his Word. This is called supernatural Cer.

tainty.

Propositions which we believe upon the Evidence of buman Testimony are called Narratives, Relations, Reports, Historical Observations, &c. but such as are built on Divine Testimony are termed Matters of Revelation; and if they are of great Importance in Religion, they are called Articles of Faith.

There are some Propositions or Parts of Knowledge, which are said to be derived from Observation and Experience, that is, Experience in our selves, and the Observations we have made on other Persons or Things; but these are made up of some of the former Springs of Knowledge join'd together, (viz.) Sense, Consciousness, Reason, Faith, &c. and therefore are not reckon'd a distinct kind of Evidence.

VI. Inspiration is a fort of Evidence distinct from all the former, and that is, when such an overpowering Impression of any Proposition is made upon the Mind by God himself, that gives a convincing and indubitable Evidence of the Truth and Divinity of it: So were the Prophets and the Apostles inspired *.

Sometimes God may have been pleased to make use of the outward Senses, or the inward Workings of the Imagination, of Dreams, Apparitions, Visions and Voices, or Reasoning, or perhaps human Narration, to convey divine Truths to the Mind of the Prophet; but none of these would be sufficient to deserve the Name of Inspiration,

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^{*} Note here, I speak chiefly of the highest Kind of Inspiration.

without a superior or Divine Light and Power at-

tending them.

This fort of Evidence is also very distinct from what we usually call Divine Faith; for every common Christian exercises Divine Faith when he believes any Proposition which God has revealed in the Bible upon this Account, because God has said it, tho' it was by a Train of Reasonings that he was led to believe that this is the Word of God: Whereas in the Case of Inspiration, the Prophet not only exercises Divine Faith, in believing what God reveals, but he is under a superior heavenly Impression, Light, and Evidence, whereby he is assured that God reveals it. This is the most eminent kind of supernatural Certainty.

Tho' Persons might be assured of their own Inspiration by some peculiar and inexpressible Consciousness of this divine Inspiration and Evidence in their own Spirits, yet it is hard to make out this Inspiration to others, and to convince them of it, except by some antecedent or consequent Prophecies or Miracles, or some publick Appear-

ances more than human.

The Propositions which are attain'd by this fort of Evidence are called inspired Truths. This is Divine Revelation at first hand, and the Dictates of God in an immediate manner, of which Theological Writers discourse at large; but since it belongs only to a few Favourites of Heaven to be inspired, and not the Bulk of Mankind, it is not necessary to speak more of it in a Treatise of Logick, which is design'd for the general Improvement of human Reason.

The various Kinds of Evidence, upon which we believe any Proposition, afford us these three Re-

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Is Remark. The same Proposition may be known to us by different kinds of Evidence: That the whole is bigger than a part is known by our Senses, and it is known by the Self-Evidence of the Thing to our Mind. That God created the Heavens and the Earth is known to us by Reason, and is known also by Divine Testimony or Faith.

IId Remark. Among these various Kinds of Evidence, some are generally stronger than others in their own Nature, and give a better Ground for Certainty. Inward Consciousness and Intelligence, as well as Divine Faith and Inspiration, usually carry much more Force with them than Sense or buman Faith, which are often fallible; tho' there are Instances wherein buman Faith, Sense and Reasoning lay a Foundation also for compleat Assurance, and leave no room for Doubt.

Reason in its own Nature would always lead us into the Truth in Matters within its Compass, if it were used aright, or it would require us to sufpend our Judgment where there is want of Evidence. But it is our Sloth, Precipitancy, Sense, Passion, and many other Things that lead our Reason astray in this degenerate and impersed Estate: Hence it comes to pass that we are guilty of fo many Errors in Reasoning, especially about divine Things, because our Reason either is busy to enquire, and resolved to determine about Matters that are above our present Reach; or because we mingle many Prejudices and fecret Influences of Sense, Fancy, Passion, Inclination, &c. with our Exercises of Reason, and judge and determine according to these irregular Influences.

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Divine Faith would never admit of any Controversies or Doubtings, if we were but affur'd that God had spoken, and that we rightly understood his Meaning.

Illd Remark. The greatest Evidence and Certainty of any Proposition does not depend upon the Variety of the Ways or Kinds of Evidence, whereby it is known, but rather upon the Strength and Degree of Evidence, and the Clearness of that Light in or by which it appears to the Mind. For a Proposition that is known only one Way may be much more certain, and have stronger Evidence than another that is supposed to be known many Ways. Therefore these Propositions, Nothing has no Properties, Nothing can make itself, which are known only by Intelligence, are much furer and truer than this Propofition, The Rainbow has real and inherent Colours in it, or than this, the Sun rolls round the Earth; tho' we feem to know both thefe last by our Senses, and by the common Testimony of our Neighbours. So any Proposition that is clearly evident to our own Consciousness or Divine Faith, is much more certain to us than a thousand others that have only the Evidence of feeble and obscure Sensations, of mere probable Reasonings and doubtful Arguments, or the Witness of fallible Men, or even tho' all these should join together.

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CHAP. III.

The Springs of false Judgment, or the Doctrine of Prejudices.

INTRODUCTION.

N the End of the foregoing Chapter, we I have survey'd the several Sorts of Evidence, on which we build our Affent to Propositions. These are indeed the general Grounds upon which we form our Judgments concerning Things. What remains in this second Part of Logick is to point out the several Springs and Causes of our Mistakes in judging, and to lay down some Rules by which we should conduct ourselves in passing a Judgment of every Thing that is proposed to us.

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I confess many Things which will be mentioned in these following Chapters might be as well refer'd to the third Part of Logick, where we shall treat of Reasoning and Argument; for most of our false Judgments seem to include a secret bad Reasoning in them; and while we shew the Springs of Error, and the Rules of true Judgment, we do at the same time discover which arguments are fallacious, which Reasonings are weak, and which are just and strong. Yet fince this is usually called a judging ill, or judging well, I think we may without any Impropriety treat of it here; and this will lay a furer Foundation for all forts of Ratiocination and Argument.

Rash Judgments are called Prejudices, and so are the Springs of them. This Word in common Life signifies an ill Opinion which we have conceived

onceive of some other Person, or some Injury done obim. But when we use the Word in Matters of Science, it signifies a Judgment that is formed oncerning any Person or Thing before sufficient Examination; and generally we suppose it to mean a also Judgment or Mistake: At least, it is an Opision taken up without solid Reason for it, or an affent given to a Proposition before we have just widence of the Truth of it, tho' the thing itself may happen to be true.

Sometimes these rash Judgments are called Presessions whereby is meant, that some particular pinion has possessed the Mind, and engaged the stent without sufficient Search or Evidence of

e Truth of it.

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There is a vast Variety of these Prejudices and repossessions which attend Mankind in every Age and Condition of Life; they lay the Foundations imany an Error, and many an unhappy Practice, oth in the Affairs of Religion, and in our civil oncernments, as well as in Matters of Learning, is necessary for a Man who pursues Truth to quire into these Springs of Error, that as far as offible he may rid himself of old Prejudices, and atch hourly against new ones.

The Number of them is so great, and they are interwoven with each other, as well as with Powers of human Nature, that it is sometimes of to distinguish them apart; yet for Method ke we shall reduce them to these four general eads, (viz.) Prejudices arising from Things, or m Words, from our selves, or from other Persons; after the Description of each Prejudice, we propose one or more Ways of curing it.

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SECT. I.

Prejudices arising from Things.

THE first fort of Prejudices are those which arise from the Things themselves about which we judge. But here let it be observed that then is nothing in the Nature of Things that will necel farily lead us into Error, if we do but use ou Reason aright, and withhold our Judgment ti there appear sufficient Evidence of Truth. Bu fince we are so unhappily prone to take Advan tage of every doubtful Appearance and Circum stance of Things to form a wrong Judgment, an plunge our felves into Mistake, therefore it is pro per to consider what there is in the Things then selves that may occasion our Errors.

I. The Obscurity of some Truths, and the Dif culty of searching them out, is one Occasion of ra and mistaken Judgment.

Some Truths are difficult because they lyer mote from the first Principles of Knowledge, at want a long Chain of Argument to come at then Such are many of the deep Things of Algebra a Geometry, and fome of the Theorems and Pro blems of most Parts of the Mathematics. Ma Things also in natural Philosophy are dark and tricate upon this Account, because we cann come at any certain Knowledge of them with the Labour of many and difficult, as well as charg able Experiments.

There are other Truths which have great Da ness upon them, because we have no proper Me or Mediums to come at the Knowledge of the Tho' in our Age we have found out many of

deep Things of Nature by the Assistance of Glasses and other Instruments; yet we are not hitherto arrived at any sufficient Methods to discover the Shape of those little Particles of Matter which the shape of those little Particles of Matter which the shape of those little Particles of Matter which the shape of those little Particles of Matter which the shape of those little Particles of Matter which the shape of Bodies; nor to find what fort of Atoms compose Liquids or Solids, and distinguish Wood, Minurals, Metals, Glass, Stone, &c. There is a Darkness also lies upon the Actions of the intellectual or angelical World; their Manners of Subsistance and Agency, the Power of Spirits to move Bodies, and the Union of our Souls with this animal Body of ours are much unknown to us on his Account.

Now in many of these Cases a great part of sankind is not content to be entirely ignorant; ut they rather choose to form rash and hasty adgments, to guess at Things without just Evience, to believe something concerning them bette they can know them, and thereby they fall ato Error.

This fort of *Prejudice*, as well as most others, scured by *Patience* and *Diligence* in *Inquiry* and *leasoning*, and a *Suspension of Judgment* till we are attain'd some proper *Mediums* of Knowedge, and till we see sufficient Evidence of the litth.

II. The Appearance of Things in a Disguise is nother Spring of Prejudice or rash Judgment. The outside of Things which first strikes us is stentimes different from their inward Nature, and we are tempted to judge suddenly according outward Appearances. If a Pisture is daub'd ith many bright and glaring Colours, the vultar Eye admires it as an excellent Piece; whereas the same Person judges very contemptuously of N 2

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fome admirable Design sketch'd out only with a black Pencil on a coarse Paper, tho' by the Hand of Raphael. So the Scholar spies the Name of a new Book in a publick News-Paper, he is charmed with the Title, he purchases, he reads with huge Expectations, and finds it all Trash and Impertinence: This is a Prejudice derived from the Appearance; we are too ready to judge that Volume valuable which had so good a Frontispiece. The large Heap of Encomiums and swelling Word of Assurance that are bestowed on Quack Medicines in publick Advertisements tempt many a Reader to judge them infallible, and to use the Pills or the Plaister with vast Hope and frequent Disappointment.

We are tempted to form our Judgment of Per sons as well as Things by these outward Appearance Where there is Wealth, Equipage and Splendor wear ready to call that Man bappy, but we see not the vexing Disquietudes of his Soul: And when w fpy a Person in ragged Garments, we form a del picable Opinion of him too fuddenly,; we a hardly think him either bappy or wise, our Judg ment is fo strangely biass'd by outward and sensible Things. It was thro' the Power of this Prejudio that the Jews rejected our blessed Saviour; the could not fuffer themselves to believe that the Ma who appeared as the Son of a Carpenter was all the Son of God. And because St. Paul was of little Stature, a mean Presence, and his Voice co temptible, some of the Corinthians were tempts to doubt whether he were inspired or no.

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This Prejudice is cured by a longer Acquain tance with the World, and a just Observation the Toings are sometimes better and sometimes worse the they appear to be. We ought therefore to the train our excessive Forwardness to form our Open

nion of Persons or Things before we have Opportunity to fearch into them more perfectly. Remember that a grey Beard does not make a Philosoober; all is not Gold that glisters; and a rough Diamond may be worth an immense Sum.

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III. A Mixture of different Qualities in the same bing is another Temptation to judge amiss. re ready to be carried away by that Quality which trikes the first or the strongest Impressions upon us, nd we judge of the whole Object according to hat Quality, regardless of all the rest; or someimes we colour over all the other Qualities with hat one Tincture, whether it be bad or good.

When we have just reason to admire a Man for is Virtues, we are sometimes inclined not only to reglect his Weaknesses, but even to put a good Colour upon them, and to think them amiable. When we read a Book that has many excellent Truths in it and Divine Sentiments, we are empted to approve not only that whole Book, out even all the Writings of that Author. When Poet, an Orator or a Painter has perform'd'adnirably in feveral illustrious Places, we fometimes lo admire his very Errors, we mistake his Bluners for Beauties, and are so ignorantly fond as to opy after them.

It is this Prejudice that has rendered so many reat Scholars perfect Bigots, and inclined them o defend Homer or Horace, Livy or Cicero, in all heir Mistakes, and vindicate all the Follies of heir favourite Author. It is this that tempts some reat Writers to support the Sayings of almost all he antient Fathers of the Church, and admire them

ven in their very Reveries.

On the other Hand, if an Author has profess beretical Sentiments in Religion, we throw ou

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Scorn upon every thing he writes, we despife ever his critical or mathematical Learning, and will hard ly allow him common Sense. If a Poem ha some Blemishes in it, there is a Set of false Cr ticks who decry it univerfally, and will allown

Beauties there.

This fort of Prejudice is relieved by learning distinguish Things well, and not to judge in the There is scarce any Thing in the Worl of Nature or Art, in the World of Morality Religion, that is perfectly uniform. There is Mixture of Wisdom and Folly, Vice and Virtue Good and Evil, both in Men and Things. W should remember that some Persons have great W and little Judgment; others are judicious, but no witty. Some are good humour'd without Compl ment; others have all the Formalities of Compla fance, but no good Humour. We ought to kno that one Man may be vicious and learned, whil another has Virtue without Learning: That man a Man thinks admirably well who has a poor u terance; while others have a charming manne of Speech, but their Thoughts are trifling an impertinent. Some are good Neighbours, and cou teous and charitable toward Men who have a Piety toward God; others are truly religious, bu of a morese natural Temper. Some excellent Sa ings are found in very filly Books, and fome fill Thoughts appear in Books of Value. We should neither praise nor dispraise by Wholesale, but sep rate the Good from the Evil, and judge of the apart: The Accuracy of a good Judgment of fifts much in making fuch Distinctions.

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Yet let it be noted too, that in common Difcourse we usually denominate Persons and Things according to the major Part of their Character. He is to be called a wise Man who has but sew Follies: He is a good Philosopher who knows much of Nature, and for the most Part reasons well in Matters of human Science: And that Book should be esteemed well written, which has much more of good Sense in it than it has of Impertinence.

IV. Tho' a Thing be uniform in its own Nature, yet the different Lights in which it may be placed, and the different Views in which it appears will be ready to excite in us mistaken Judgments concerning it. Let an erect Cone be placed in a horizontal Plane, at a great Distance from the Eye, and it appears a plain Triangle; but we shall judge that very Cone to be nothing but a flat Circle, if its Base be obverted towards us. Set a common round Plate a little obliquely before our Eye afar off, and we shall think it an oval Figure; but if the very Edge of it be turned towards us, we shall take it for a strait Line. So when we view the feveral Folds of a changeable Silk, we pronounce this Part red, and that yellow, because of its different Position to the Light, tho' the Silk laid smooth in one Light appears all of one Colour.

When we survey the Miseries of Mankind, and think of the Sorrows of Millions, both on Earth and in Hell, the Divine Government has a terrible Aspect, and we may be tempted to think hardly even of God himself: But if we view the Profusion of his Bounty and Grace amongst his Creatures on Earth, or the happy Spirits in Heaven, we shall have so exalted an Idea of his Goodness as to forget his Vengeance. Some Men dwell entirely

tirely upon the Promises of his Gospel, and think him all Mercy: Others under a melancholy Frame, dwell upon his Terrors and his Threatnings, and are overwhelmed with the Thought of his Severity and Vengeance, as tho there were no Mercy in him.

The true Method of delivering ourselves from this Prejudice is to view a thing on all sides, to compare all the various Appearances of the fame thing with one another, and let each of them have its full Weight in the Balance of our Judgment, before we fully determine our Opinion. It was by this Means that the modern Astronomers came to find out that the Planet Saturn hath a flat broad Circle round its Globe, which is called its Ring, by observing the different Appearances as a narrow or a broader Oval, or as it sometimes seems to be Grait Line, in the different Parts of its twenty nine Years Revolution thro' the Ecliptic. And i we take the same just and religious Survey of the great and bleffed God in all the Discoveries of his Vengeance and his Mercy, we shall at last conclude him to be both just and good.

V. The casual Association of many of our Idea becomes the Spring of another Prejudice or rash Judgment, to which we are sometimes exposed If in our younger Years we have taken Medicine that have been nauseous, when any Medicine what soever is afterward proposed to us under Sickness we immediately judge it nauseous: Our Fancy has so closely join'd these Ideas together, that we know not how to separate them: Then the Stomach seels the Disgust, and perhaps refuses the only Drug that can preserve Life. So a Child who has been let Blood joins the Ideas of Pais and the Surgeon together, and he hates the Sigh

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of the Surgeon, because he thinks of his Pain: Or if he has drunk a bitter Potion, he conceives a bitter Idea of the Cup which held it, and will

drink nothing out of that Cup.

It is for the same Reason that the Bulk of the common People are fo superstitiously fond of the Psalms translated by Hopkins and Sternhold, and think them facred and divine, because they have been now for more than an hundred Years bound

up in the same Covers with our Bibles.

The best Relief against this Prejudice of Association is to consider, whether there be any natural and necessary Connection between those Ideas which Fancy, Custom or Chance hath thus joined together: And if Nature has not join'd them, let our Judgment correct the Folly of our Imagination, and separate these Ideas again.

SECT. II.

Prejudices arising from Words.

OUR Ideas and Words are so linkt together, that while we judge of Things according to Words, we are led into several Mistakes. These may be distributed under two general Heads, (viz.) Such as arise from single Words or Phrases, or such as arise from Words joined in Speech, and composing a Discourse.

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I. The most eminent and remarkable Errors of the first Kind, are these three. (1.) When our Words are insignificant, and have no Ideas; as when the mystical Divines talk of the Prayer of Silence, the supernatural and passive Night of the Soul, the Vacuity of Powers, the Suspension of all Thoughts: Or (2.) When our Words are equivocal,

cal, and fignify two or more Ideas, as the Words Law, Light, Flesh, Spirit, Righteousness, and many other Terms in Scripture: Or (3.) When two or three Words are synonymous, and fignify one Idea, as Regeneration and new Creation in the new Testament; both which mean only a Change of the Heart from Sin to Holiness; or as the Elector of Cologn and the Bishop of Cologn are two Titles of the same Man.

These kinds of Phrases are the Occasions of various Mistakes; but none so unhappy as those in Theology: For both Words without Ideas, as well as synonymous and equivocal Words, have been used and abused by the Humours, Passions, Interests, or by the real Ignorance and Weakness of Men to beget terrible Contests among Christians.

But to relieve us under all those Dangers, and to remove these sorts of Prejudices which arise from single Words or Phrases, I must remit the Reader to Part I. Chap. 4. where I have treated about Words, and to those Directions which I have given concerning the Definition of Names, Part I. Chap. 6. Seet. 3.

II. There is another fort of false Judgments or Mistakes which we are exposed to by Words; and that is, when they are joined in Speech, and compose a Discourse; and here we are in Danger two

Ways.

The one is, when a Man writes good Sense, or speaks much to the Purpose, but he has not a happy and engaging manner of Expression. Perhaps he uses coarse and vulgar Words, or old, obsolete, and unfashionable Language, or Terms and Phrases that are foreign, latinized, scholastick, very uncommon, and hard to be understood: And this

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this is still worse, if his Sentences are long and intricate, or the Sound of them harsh and grating to the Ear. All these indeed are Defects in Style, and lead some nice and unthinking Hearers or Readers into an ill Opinion of all that such a Person speaks or writes. Many an excellent Discourse of our Foresathers has had Abundance of Contempt cast upon it by our modern Pretenders to Sense, for want of their distinguishing between

the Language and the Ideas.

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On the other hand, when a Man of Eloquence fpeaks or writes upon any Subject, we are too ready to run into his Sentiments, being sweetly and infensibly drawn by the Smoothness of his Harangue, and the pathetic Power of his Language. Rhetorick will varnish every Error so that it shall appear in the Drefs of Truth, and put fuch Ornaments upon Vice as to make it look like Virtue: It is an Art of wondrous and extensive Influence; it often conceals, obscures or overwhelms the Truth, and places fometimes a groß Falshood in The Decency of Action, a most alluring Light. the Musick of the Voice, the Harmony of the Periods, the Beauty of the Stile, and all the engaging Airs of the Speaker have often charm'd the Hearers into Error, and persuaded them to approve whatfoever is proposed in so agreeable a manner. A large Affembly stands exposed at once to the Power of these Prejudices, and imbibes them all. So Cicero and Demosthenes made the Romans and the Athenians believe almost what soever they pleased.

The best Defence against both these Dangers is to learn the Skill (as much as possible) of separating our Thoughts and Ideas from Words and Phrases, to judge of Things in their own Natures, and in their natural or just Relation to one another,

ther abstracted from the Use of Language, and to maintain a steady and obstinate Resolution to hearken to nothing but Truth, in whatsoever

Stile or Dress it appears.

Then we shall hear a Sermon of pious and just Sentiments with Esteem and Reverence, tho' the Preacher has but an unpolished Stile, and many Desects in the manner of his Delivery. Then we shall neglect and disregard all the flattering lassinuations whereby the Orator would make Way for his own Sentiments to take Possession of our Souls, if he has not solid and instructive Sense equal to his Language. Oratory is a happy Talent when it is rightly employ'd to excite the Passions to the Practice of Virtue and Piety; but to speak properly, this Art has nothing to do in the Search after Truth.

SECT. III.

Prejudices arising from ourselves.

DEither Words nor Things would fo often lead us aftray from Truth, if we had not within our felves fuch Springs of Error as these that follow.

I. Many Errors are derived from our Weakness of Reason, and Incapacity to judge of Things in our Infant State. These are called the Prejudices of Infancy. We frame early Mistakes about the common Objects which surround us, and the common Affairs of Life: We fancy the Nurse is our best Friend, because Children receive from their Nurses their Food and other Conveniencies of Life. We judge that Books are very unpleasant Things, because perhaps we have been driven to them

them by the Scourge. We judge also that the Sky touches the distant Hills, because we cannot inform ourselves better in Childhood. We believe the Stars are not risen till the Sun is set, because we never see them by Day. But some of these Errors may seem to be derived from the next Spring.

The Way to cure the Prejudices of Infancy is to distinguish, as far as we can, which are those Opinions which we fram'd in perfect Childhood, to remember that at that Time our Reason was incapable of forming a right Judgment, and to bring these Propositions again to be examined at

the Bar of maturer Reason.

II. Our Senses give us many a false Information of Things, and tempt us to judge amis. This is called the Prejudice of Sense, as when we suppose the Sun and Moon to be flat Bodies, and to be but a few Inches broad, because they appear so to the Eye. Sense inclines us to judge that Air has no Weight, because we don't feel it press heavy upon us; and we judge also by our Senses that Cold and Heat, Sweet and Sour, Red and Blue, &c. are such real Properties in the Objects themselves, and exactly like those Sensations which they excite in us.

Note, Those Mistakes of this fort which all Mankind drop and lose in their advancing Age are called mere *Prejudices of Insancy*, but those which abide with the vulgar Part of the World, and generally with all Men, till Learning and Philosophy cure them, more properly retain the Name of *Prejudices of Sense*.

These Prejudices are to be remov'd several Ways.

(1.) By the Assistance of one Sense we cure the Mistakes of another, as when a Stick thrust into

the Water seems crooked, we are prevented from judging it to be really fo in itself, for when we take it out of the Water, both our Sight and our Feeling agree and determine it to be strait. (2.) The Exercise of our Reason, and an Application to mathematical and philosophical Studies, cures many other Prejudices of Sense both with Relation to the beavenly and earthly Bodies. (3.) We should remember that our Senses have often deceived us in various Instances, that they give but a confus'd and imperfect Representation of Things in many Cases, that they often represent fallly those very Objects to which they feem to be suited, fuch as the Shape, Motion, Size and Situation of gross Bodies, if they are but placed at a Distance from us; and as for the minute Particles of which Bodies are composed, our Senses cannot diffinguish them. (4.) We should remember also that one prime and original Defign of our Senses is to inform us what various Relations the Bodies that are round about us bear to our own animal Body, and to give us Notice what is pleafant and useful, or what is painful and injurious to us; but they are not sufficient of themselves to lead us into a philosophical Acquaintance with the inward Nature of Things. It must be confest'd it is by the Assistance of the Eye and the Ear especially (which are called the Senses of Discipline) that our Minds are furnish'd with various Parts of Knowledge, by reading, hearing, and observing Things divine and human; yet Reason ought always to accompany the Exercise of our Senses whenever we would form a just Judgment of Things proposed to our Enquiry.

Here it is proper to observe also, that as the Weakness of Reason in our Infancy, and the Dictates of our Senses sometimes in advancing Years, lead

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lead the wifer part of Mankind astray from Truth; so the meaner Parts of our Species, Persons whose Genius is very low, whose Judgment is always weak, who are ever indulging the Distates of Sense and Humour, are but Children of a larger Size; they stand exposed to everlasting Mistakes in Life, and live and die in the midst of Prejudices.

III. Imagination is another fruitful Spring of false Judgments. Our Imagination is nothing else but the various Appearances of our fenfible Ideas in the Brain, where the Soul frequently works in uniting, disjoining, multiplying, magnifying, diminishing and altering the several Shapes, Colours, Sounds, Motions, Words and Things that have been communicated to us by the outward Organs It is no wonder therefore if Fancy lead us into many Mistakes, for it is but Sense at second-hand. Whatever is strongly imprest upon the Imagination some Persons believe to be true. Some will choose a particular Number in a Lottery, or lay a large Wager on a fingle Chance of a Dye, and doubt not of Success, because their Fancy feels fo powerful an Impression, and assures them it will be prosperous. A thousand pretended Prophesies and Inspirations, and all the Freaks of Enthusiasm have been derived from this Spring. Dreams are nothing else but the Deceptions of Fancy: A Delirium is but a short Wildness of the Imagination; and a fettled Irregularity of Fancy is Distraction and Madness.

One Way to gain a Victory over this unruly Faculty, is to fet a Watch upon it perpetually, and to bridle it in all its Extravagances; never to believe any thing merely because Fancy dictates it any more than I would believe a Midnight Dream, nor to trust Fancy any farther than it is attended

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with fevere Reason. It is a very useful and entertaining Power of human Nature in Matters of Illustration, Persuasion, Oratory, Poesy, Wit, Conversation, &c. but in the calm Enquiry after Truth and final Judgment of Things Fancy should retire, and stand aside, unless it be called in to explain or illustrate a difficult Point by a Similitude.

Another Method of Deliverance from these Prejudices of Fancy, is to compare the Ideas that arise in our Imaginations with the real Nature of Things, as often as we have occasion to judge concerning them; and let calm and sedate Reason govern and determine our Opinions, tho' Fancy should shew never so great a Reluctance. Fancy is the inferior Faculty, and it ought to obey.

IV. The various Passions or Affections of the Mind are numerous and endless Springs of Prejudice. They difguise every Object they converse with, and put their own Colours upon it, and thus lead the Judgment aftray from Truth. It is Love that makes the Mother think her own Child the fairest, and will sometimes persuade us that a Blemish is a Beauty. Hope and Desire make an Hour of Delay feem as long as two or three Hours; Hope inclines us to think there is nothing too difficult to be attempted; Despair tells us that a brave Attempt is mere Rashness, and that every Difficulty is unfurmountable. Fear makes us imagine that a Bush shaken with the Wind has fome favage Beaft in it, and multiplies the Dangers that attend our Path: But still there is a more unhappy Effect of Fear when it keeps Millions of Souls in Slavery to the Errors of an established Religion: What could perfuade the wife Men and Philosophers of a Popish Country to believe

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lieve the gross Absurdities of the Roman Church, but the Fear of Torture or Death, the Galleys or the Inquisition? Sorrow and Melancholy tempt us to think our Circumstances much more dismal than they are, that we may have some Excuse for Mourning: And Envy represents the Condition of our Neighbour better than it is, that there might be some Pretence for her own Vexation and Unassiness. Anger and Wrath and Revenge, and all hose hateful Passions excite in us far worse Ideas of Men than they deserve, and persuade us to be ever all that is ill of them. A Detail of the Evil insured of the Affections of the Mind upon our judgment would make a large Volume.

The Cure of these Prejudices is attained by a onstant Jealousy of ourselves, and Watchfulness ver our Passions, that they may never interpose hen we are called to pass a Judgment of any thing: nd when our Affections are warmly engaged, let sabstain from judging. It would be also of great le to us to form our deliberate Judgments of ersons and Things in the calmest and serenest lours of Life, when the Passions of Nature are I filent, and the Mind enjoys its most perfect. omposure: And these Judgments so form'd should treasured up in the Mind, that we might have course to them in Hours of Need. See many ore Sentiments and Directions relating to this bject in my Doctrine of the Passions. 2d Edition larged.

V. The Fondness we have for Self, and the lation which other Persons and Things have to Selves, furnish us with another long Rank Prejudices. This indeed might be reduced the Passion of Self-Love, but it is so copious Head that I chose to name it as a distinct O Spring

Spring of false Judgments. We are generally ready to fancy every thing of our own has fome thing peculiarly valuable in it, when indeed there is no other Reason, but because it is our own Were we born amongst the Gardens of Italy, the Rocks of Switzerland, or the Ice and Snows of Russia and Sweden, still we should imagine peculiar Excellencies in our native Land, We conceive a good Idea of the Town and Village when we first breathed, and think the better of a Mar for being born near us. We entertain the bel Opinion of the Persons of our own Party, and ea fily believe evil Reports of Persons of a different Sect or Faction. Our own Sex, our Kindred, our Houses, and our very Names, seem to have some thing good and defirable in them. We are read to mingle all these with our selves, and canno bear to have others think meanly of them.

So good an Opinion have we of our own Sents ments and Practices, that it is very difficult to be lieve what a Reprover fays of our Conduct; and we are as ready to affent to all the Language of We fet up our own Opinions in Religi on and Philosophy as the Tests of Orthodoxy and Truth; and we are prone to judge every Practic of other Men either a Duty or a Crime which w think would be a Crime or a Duty to us, tho' the Circumstances are vastly Different from our own This Humour prevails fometimes to fuch a Degree that we would make our own Taste and Inclination the Standard by which to judge of every Diff Meat that is fet upon the Table, every Book in Library, every Employment, Study and Buline of Life, as well as every Recreation.

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It is from this evil Principle of setting up se for a Model what other Men ought to be, that the Antichristian Spirit of Imposition and Persecution had its Original: tho' there is no more Reason for it than there was for the Practice of that Tyrant, who having a Bed fit for his own Size, was reported to stretch Men of low Stature upon the Rack, till they were drawn out to the Length of his Bed; and some add also that he cut off the Legs of any whom he found too long for it.

It is also from a Principle near akin to this that we pervert and strain the Writings of any venerable Authors, and especially the sacred Books of Scripture to make them speak our own Sense. Thro' the Influence which our own Schemes or Hypothesis have upon the Mind, we sometimes become so sharp-sighted as to find these Schemes in those Places of Scripture where the holy Writers never thought of them, nor the holy Spirit intended them. At other Times this Prejudice brings such a Dimness upon the Sight, that we cannot read any thing that opposes our own Scheme, tho' it be written as with Sun-beams, and in the plainest Language; and perhaps we are in Danger in such a Case of winking a little against the Light.

We ought to bring our Minds free, unbiase'd and teachable to learn our Religion from the Word of God; but we have generally formed all the lesser as well as the greater Points of our Reigion beforehand, and then we read the Prophets and Apostles only to persuade them to confirm our own Opinions. Were it not for this Influence of Self, and a Bigotry to our own Tenets, we could hardly imagine that so many strange, blurd, inconsistent, wicked, mischievous, and loody Principles should pretend to support and estend themselves by the Gospel of Christ.

Every learned Critick has bis own Hypothesis; and if the common Text be not savourable to his pinion, a various Lection shall be made authen-

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tick. The Text must be supposed to be defective or redundant, and the Sense of it shall be literal or metaphorical, according as it best supports his own Scheme. Whole Chapters or Books shall be added or left out of the facred Canon, or be turned into Parables by this Influence. Luther knew not well how to reconcile the Epistle of St. James to the Doctrine of Justification by Faith alone, and so he could not allow it to be Divine, The Papists bring all the Apocrypha into their Bible, and stamp Divinity upon it; for they can fancy Purgatory is there, and they find Prayers for the Dead. But they leave out the fecond Commandment because it forbids the Worship of Images. Others suppose the Mosaick History of the Creation and the Fall of Man to be oriental Ornaments, or a mere Allegory, because the literal Sense of those three Chapters of Genesis don't agree with their Theories. Even an honest plain-hearted and unlearned Christian is ready to find something in every Chapter of the Bible, to countenance his own private Sentiments; but he loves those Chapters best which speak his own Opinions plainest: This is a Prejudice that sticks very close to our Natures; the Scholar is infested with it daily, and the Mechanick is not free.

Self has yet a farther and pernicious Influence upon our Understandings, and is an unhappy Guide in the Search after Truth. When our own Inclination or our Ease, our Honour or our Profit tempts us to the Practice of any thing of suspected Lawfulness, how do we strain our Thoughts to find Arguments for it, and persuade our selve it is lawful? We colour over Iniquity and finful Compliance with the Names of Virtue and Innocence, or at least of constraint and Necessity. the different and opposite Sentiments and Practi

ces of Mankind are too much influenced by this mean Bribery, and give too just Occasion for satyrical Writers to say that Self-Interest governs all Mankind.

When the Judge had awarded due Damages to a Person into whose Field a Neighbour's Oxen had broke, it is reported that he reversed his own Sentence, when he heard that the Oxen which had done this Mischief were his own. Whether this be a History or a Parable, it is still a just Representation of the wretched Influence of Self to

corrupt the Judgment.

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One Way to amend this Prejudice is to thrust self so far out of the Question that it may have no manner of Influence whensoever we are call'd to judge and consider the naked Nature, Truth and Justice of Things. In Matters of Equity between Man and Man, our Saviour has taught as an effectual Means of guarding against this Prejudice, and that is to put my Neighbour in the Place of my Self, and my Self in the Place of my Neighbour, rather than be brib'd by this corrupt Principle of Self-Love to do Injury to our Neighbours. Thence arises that Golden Rule of dealing with others as we would have others deal with us.

In the Judgment of Truth and Falshood, Right and Wrong, Good and Evil, we ought to consider hat every Man has a Self as well as we; and hat the Tastes, Passions, Inclinations and Inteests of different Men are very different, and often contrary, and that they distate contrary Things: Inless therefore all manner of different and contrary Propositions could be true at once, Self can lever be a just Test or Standard of Truth and

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VI. The Tempers, Humours, and peculiar Turns of the Mind, whether they be natural or acquired, have a great Influence upon our Judgment, and become the Occasion of many Mistakes. Let us survey a few of them.

(1.) Some Persons are of an easy and credulous Temper, while others are perpetually discovering a

Spirit of Contradiction.

The credulous Man is ready to receive every thing for Truth, that has but a Shadow of Evidence; every new Book that he reads, and every ingenious Man with whom he converses, has Power enough to draw him into the Sentiments of the Speaker or Writer. He has so much Complainance in him, or Weakness of Soul, that he is ready to resign his own Opinion to the first Objection which he hears, and to receive any Sentiments of another that are afferted with a positive Air and much Assurance. Thus he is under a kind of Necessity thro' the Indulgence of this credulous Humour, either to be often changing his Opinions, or to believe Inconsistencies.

The Man of Contradiction is of a contrary Humour, for he stands ready to oppose every thing that is said: he gives a slight Attention to the Reasons of other Men, from an inward scornful Presumption that they have no Strength in them. When he reads or hears a Discourse different from his own Sentiments, he does not give himself leave to consider whether that Discourse may be true; but employs all his Powers immediately to confute it. Your great Disputers and your Men of Controversy are in continual Danger of this sort of Prejudice: they contend often for Victory, and will maintain whatsoever they have afferted, while Truth is lost in the Noise and Tumult of reciporca

procal Contradictions; and it frequently happens that a Debate about Opinions is turned into a mu-

wal Reproach of Persons.

The Prejudices of Credulity may in some Measure be cured by learning to set a high Value on
Truth, and by taking more Pains to attain it; remembring that Truth oftentimes lies dark and
deep, and requires us to dig for it as for hid Treasure; and that Falshood often puts on a fair Disguise, and therefore we should not yield up our
Judgment to every plausible Appearance. It is
no part of Civility or good Breeding to part with
Truth, but to maintain it with Decency and
Candor.

A Spirit of Contradiction is so pedantick and hateful that a Man should take much Pains with himself to watch against every Instance of it: He should learn so much good Humour at least as never to oppose any thing without just and solid Reason for it: He should abate some Degrees of Pride and Moroseness, which are never failing Ingredients in this fort of Temper, and should seek after so much Honesty and Conscience as never to contend for Conquest or Triumph; but to review his own Reasons, and to read the Arguments of his Opponents (if possible) with an equal Indifferency, and be glad to spy Truth, and to submit to it, tho it appear on the opposite Side.

(2.) There is another Pair of Prejudices deriv'd from two Tempers of Mind, near akin to those I have just mention'd; and these are the dogmatical and the sceptical Humour, i. e. always positive, or

always doubting.

By what means foever the *Dogmatist* came by his Opinions, whether by his Senses, or by his Fancy, his Education, or his own Reading, yet he believes them all with the same Assurance that

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he does a mathematical Truth; he has scarce any mere Probabilities that belong to him; every thing with him is certain and infallible; every Puncillo in Religion is an Article of his Faith, and he anfwers all manner of Objections by a fovereign

Contempt.

Persons of this Temper are seldom to be convinced of any Mistake: A full Assurance of their own Notions makes all the Difficulties of their own Side vanish so entirely, that they think every Point of their Belief is written as with Sun beams, and wonder any one should find a Diff. culty in it. They are amazed that learned Men should make a Controversy of what is to them fo perspicuous and indubitable. The lowest Rank of People both in learned and in vulgar Life

very subject to this Obstinacy.

Sceptism is a contrary Prejudice. The Dogma tist is fure of every Thing, and the Sceptick be lieves nothing. Perhaps he has found himself of ten mistaken in Matters of which he though himself well assured in his younger Days, and therefore he is afraid to give Assent to any thing again. He fees fo much Shew of Reason for every Opinion, and fo many Objections all arifing against every Doctrine, that he is ready to throw off the Belief of every Thing: He re nounces at once the Pursuit of Truth, and content himself to say, There is nothing certain. It is well if thro' the Influence of fuch a Temper he does not cast away his Religion as well as his Philoso phy, and abandon himself to a profane Coursed Life, regardless of Hell and Heaven.

Both these Prejudices last mentioned, tho' they are so opposite to each other, yet they arise from the same Spring, and that is, Impatience of Stud and Want of diligent Attention in the Search Truth Truth. The Dogmatist is in haste to believe something; he can't keep himself long enough in Suspence till some bright and convincing Evidence appear on one Side; but throws himself casually into the Sentiments of one Party or another, and then he will hear no Argument to the contrary. The Sceptick will not take Pains to search Things to the Bottom, but when he sees Difficulties on both Sides resolves to believe neither of them. Humility of Soul, Patience in Study, Diligence in Enquiry, with an honest Zeal for Truth, would go a great way towards the Cure of both these Follies.

(3.) Another fort of Temper that is very injurious to a right Judgment of things is an inconstant, fickle, changeable Spirit, and a very uneven Temper of Mind. When such Persons are in one Humour, they pass a Judgment of Things agreeable to it; when their Humour changes, they reverse their first Judgment, and embrace a new Opinion. They have no Steadiness of Soul; they want Firmness of Mind sufficient to establish themselves in any Truth, and are ready to change it for the next alluring Falshood that is agreeable to their Change of Humour. This Fickleness is sometimes so mingled with their very Constitution by Nature or by Distemper of Body, that a cloudy Day and a lowring Sky shall strongly incline them to form an Opinion, both of themselves and of Persons and Things round about them, quite different from what they believe when the Sun shines and the Heavens are serene.

This fort of People ought to judge of Things and Persons in their most sedate, peaceful and composed Hours of Life, and reserve these Judgments for their Conduct at more unhappy Sea-

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(4.) Some Persons have a violent and turgid Man. ner both of Talking and Thinking; whatfoever they judge of, it is always with a Tincture of this Vanity. They are always in Extremes, and pronounce concerning every thing in the Superlative, If they think a Man to be learned, he is the chief Scholar of the Age: If another has low Parts, be is the greatest Blockhead in Nature: If they approve any Book on divine Subjects, it is the belt Book in the World next to the Bible: If they speak of a Storm of Rain or Hail, it is the most terrible Storm that fell fince the Creation; and a cold Winter Day is the coldest that ever was known.

But the Men of this swelling Language ought to remember that Nature has ten thousand moderate Things in it, and does not always deal in Ex-

tremes as they do.

(3.) I think it may be called another fort of Prejudices derived from Humour, when some Men believe a Dostrine merely because it is ancient and has been long believ'd; others are so fond of Novelty, that nothing prevails upon their Affent fo much as new Thoughts and new Notions. Again, there are some who set a high Esteem upon every thing that is foreign, and far-fetch'd; therefore China Pictures are admired, how aukward soever: Others value Things the more for being of our own native Growth, Invention, or Manufacture, and these as much despise foreign Things.

Some Men of Letters and Theology will not believe a Proposition even concerning a sublime Subject, till every thing mysterious, deep and difficult is cut off from it, tho' the Scripture afferts it never so plainly; others are so fond of a My stery and things incomprehensible, that they would scarce believe the Doctrine of the Trinity if it could be explained; they incline to that foolih

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Rant of one of the Antients, Credo quia impossibile est; I believe it because it is impossible.

To cure these Mistakes remember that neither antique or novel, foreign or native, mysterious or plain, are certain Characters either of Truth or

Falshood.

I might mention various other Humours of Menthat excite in them various Prejudices, and lead them into rash and mistaken Judgments; but these are sufficient for a Specimen.

VII. There are feveral other Weaknesses which belong to human Nature, whereby we are led into Mistakes, and indeed are render'd almost uncapable of passing a solid Judgment in Matters of great Depth and Difficulty. Some have a native Obscurity of Perception, (or shall I call it a want of natural Sagacity?) whereby they are hinder'd from attaining clear and distinct Ideas. Thoughts always feem to have fomething confused and cloudy in them, and therefore they judge in the dark. Some have a Defect in Memory, and then they are not capable of comparing their prefent Ideas with a great Variety of other, in order to secure themselves from Inconsistency in Judgment. Others may have a Memory large enough, yet they are subject to the same Errors from a Narrowness of Soul, and such a Fixation and Confinement of Thought to a few Objects, that they scarce ever take a survey of Things wide enough to judge wifely and well, and to fecure themselves from all Inconfiftencies.

Tho' these are natural Defects and Weaknesses, yet they may in some measure be reliev'd by Labour, Diligence and a due Attention to proper

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But among all the Causes of false Judgment which are within ourselves, I ought by no means to leave out that universal and original Spring of Error, which we are informed of by the Word of God, and that is the Sin and Defection of our first Parents, whereby all our best natural Powers both of Mind and Body are impair'd, and ren. der'd very much inferior to what they were in a State of Innocence. Our Understanding is darken'd, our Memory contracted, our corrupt Humours and Passions are grown predominant, our Reason infeebled, and various Disorders attend our Conflitution and animal Nature, whereby the Mind is strangely imposed upon in its Judgment of Things. Nor is there any perfect Relief to be expected on Earth. There is no hope of ever recovering from these Maladies, but by a sincere Return to God in the Ways of his own Appoint. ment, whereby we shall be kept safe from all dan. gerous and pernicious Errors in the Matters of Religion; and tho' Imperfections and Mistakes will hang about us in the present Life as the Effects of our original Apostacy from God, yet we hope for a full Deliverance from them when we arrive at Heaven.

SECT. IV.

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Prejudices arising from other Persons.

ERE it not for the Springs of Prejudice, that are lurking in ourselves, we should not be subject to so many Mistakes from the Influence of others: But since our Nature is so susceptive of Errors on all Sides, it is fit we should have Hints and Notices given us, how far other Perfons may have Power over us, and become the Causes

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Causes of our false Judgments. This might all be cast into one Heap, for they are all near akin, and mingle with each other: but for Distinction sake let them be called the *Prejudices of Education*, of Custom, of Authority, and such as arise from the manner of Proposal.

I. Those with whom our Education is entrusted may lay the first Foundation of many Mistakes in our younger Years. How many Fooleries and Errors are instilled into us by our Nurses, our Fellow-Children, by Servants or unskilful Teachers, which are not only maintained through the following Parts of Life, but fometimes have a very unhappy Influence upon us! We are taught that There are Goblings and Bugbears in the Dark; our young Minds are crowded with the terrible Ideas of Ghosts appearing upon every Occasion, or with the pleasanter Tales of Fairies dancing at Midnight. We learn to prophesy betimes, to foretel Futurities by good or evil Omens, and to presage approaching Death in a Family by Ravens and little Worms, which we therefore call a Death-watch, We are taught to know beforehand, for a Twelvemonth together, which Days of the Week will be fair or foul, which will be lucky or unlucky; nor is there any Thing fo filly, but may be imposed upon our Understandings in that early Part of Life; and these ridiculous Stories abide with us too long, and too far influence the weaker Part of Mankind.

We chuse our particular Sect and Party in the civil, the religious and the learned Life, by the Influence of Education. In the Colleges of Learning, some are for the Nominals, and some for the Realists in the Science of Metaphysicks, because their Tutors were devoted to these Parties. The

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old Philosophy and the new have gained thousands of Partizans the same Way: And every Religion has its Infant Votaries, who are born, live and die in the same Faith without Examination of any Article. The Turks are taught early to believe in Mahomet; the Jews in Moses; the Heathens wor. ship a Multitude of Gods under the Force of their Education. And it would be well if there were not Millions of Christians, who have little more to fay for their Religion, than that they were born and bred up in it. The greatest part of the Christian World can hardly give any Reason why they believe the Bible to be the Word of God, but because they have always believed it, and they were taught fo from their Infancy. As Fews and Turks, and American Heathens believe the most monstrous and incredible Stories, because they have been train'd up amongst them, as Articles of Faith; fo the Papists believe their Transubstantiation, and make no Difficulty of affenting to Impossibilities, fince it is the current Doctrine of their Catechisms. By the same Means the several Sects and Parties in Christianity believe all the strained Interpretations of Scripture by which they have been taught to support their own Tenets: They find nothing difficult in all the abfurd Glosses and far-fetch'd Senses that are sometimes put upon the Words of the facred Writers, because their Ears have been always accustom'd to these Glosses; and therefore they fit so smooth and easy upon their Understandings, that they know not how to admit the most natural and easy Interpretation in Opposition to them.

In the same manner we are nurst up in many filly and gross Mistakes about domestick Affairs as well as in Matters of political Concernment. It is upon the same Ground that Children are train'd up to be Whigs and Tories betimes; and every one learns the distinguishing Terms of his own Party, as the Papists learn to say their Prayers in Latin, without any Meaning, Reason, or Devotion.

This fort of *Prejudice* must be cured by calling all the Principles of our younger Years to the Bar of more mature Reason, that we may judge of the Things of *Nature* and *political Affairs* by juster Rules of Philosophy and Observation: And even the *Matters of Religion* must be first enquired into by *Reason* and *Conscience*, and when these have led us to believe *Scripture to be the Word of God*, then that becomes our sovereign Guide, and Reason and Conscience must submit to receive its Dictates.

II. The next Prejudice which I shall mention is, that which arises from the Custom or fashion of those among st whom we live. Suppose we have freed our selves from the younger Prejudices of our Education, yet we are in Danger of having our Mind turned aside from Truth by the Influence

of general Custom.

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'd up Our Opinion of Meats and Drinks, of Garments and Forms of Salutation are influenced much more by Custom than by the Eye, the Ear, or the Taste. Custom prevails even over Sense itself, and therefore no Wonder if it prevail over Reason too. What is it but Custom that renders many of the Mixtures of Food and Sauces elegant in Britain, which would be aukward and nauseous to the Inhabitants of China, and indeed were nauseous to us when we first tasted them? What but Custom could make those Salutations polite in Muscovy, which are ridiculous in France or England? We call our selves indeed the politer Nations, but it is we who judge thus of ourselves; and that fancied

cied Politeness is oftentimes more owing to Custom than Reason. Why are the Forms of our present Garments counted beautiful, and those Fashions of our Ancestors the Matter of Scoff and Contempt, which in their Day were all decent and genteel? It is Custom that forms our Opinion of Dress, and reconciles us by Degrees to those Habits which at first seemed very odd and monstrous. It must be granted there are some Garments and Habits which have a natural Congruity or Incongruity, Modesty or Immodesty, Decency or Indecency, Gaudery or Gravity; tho' for the most part there is but little of Reason in these Affairs: But what little there is of Reason or natural Decency, Custom triumphs over it all. It is almost impossible to perfuade a gay Lady that any thing can be decent which is out of Fashion: And it were well if Fashion stretch'd its Powers no farther than the Business of Drapery and the Fair Sex.

The Methods of our Education are govern'd by Custom. It is Custom and not Reason that sends every Boy to learn the Roman Poets, and begin a little Acquaintance with Greek, before he is bound an Apprentice to a Soapboiler or Leatherseller. It is Custom alone that teaches us Latin by the Rules of a Latin Grammar; a tedious and abfurd Method! And what is it but Custom that has for past Centuries confined the brightest Genius's even of high Rank in the Female World to the only Business of the Needle, and secluded them most unmercifully from the Pleasures of Knowledge, and the Divine Improvements of Reason? But we begin to break all these Chains, and Reason begins to dictate the Education of Youth. May

the growing Age be learned and wife!

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It is by the Prejudice arising from our own Custom, that we judge of all other civil and religious Forms and Practices. The Rites and Ceremonies of War and Peace in other Nations, the Forms of Weddings and Funerals, the several Ranks of Magistracy, the Trades and Employments of both Sexes, the publick and the domestick Affairs of Life, and almost every thing of foreign Customs is judg'd irregular. It is all imagined to be unreasonable or unnatural, by those who have no other Rule to judge of Nature and Reason, but the Customs of their own Country, or the little Town where they dwell. Custom is called a second Nature, but we

often mittake it for Nature itself.

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Besides all this, there is a Fashion in Opinions, there is a Fashion in Writing and Printing, in Stile and Language. In our Day it is the Vogue of the Nation, that Parliaments may settle the Succession of the Crown, and that a People can make King; in the last Age this was a Doctrine akin o Treason. Citations from the Latin Poets were n Embellishment of Stile in the last Century, nd whole Pages in that Day were cover'd with hem; it is now forbidden by Custom, and exosed by the Name of Pedantry; whereas in ruth both these are Extremes. Sometimes our rinted Books shall abound in Capitals, and somemes reject them all. Now we deal much in E_f y, and most unreasonably despise systematic earning, whereas our Fathers had a just Value r Regularity and Systems; then Folio's and yarto's were the fashionable Sizes, as Volumes Offavo are now. We are ever ready to run in-Extremes, and yet Custom still persuades us at Reason and Nature are on our Side.

This Business of the Fashion has a most power. ful Influence on our Judgments; for it employs those two strong Engines of Fear and Shame to operate upon our Understandings with unhappy Success. We are ashamed to believe or profess an unfashionable Opinion in Philosophy, and a cowardly Soul dares not so much as indulge a Thought contrary to the establish d or fashionable Faith, nor act in Opposition to Custom, tho it be according to the Dictates of Reason.

I confess, there is a Respect due to Mankind which should incline even the wisest of Men to follow the innocent Customs of their Country in outward Practices of the Civil Life, and in some Measure to submit to Fashion in all indifferent Asfairs, where Reason and Scripture make no Remonstrances against it. But the Judgments of the Mind ought to be for ever free, and not biass'd by the Customs and Fashions of any Age or Nati-

on whatfoever.

To deliver our Understandings from this Danger and Slavery, we should consider these three

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of any particular Nation or Age spring from Humour rather than Reason. Sometimes the Humour of the Prince prevails, and sometimes the Humour of the People. It is either the Great of the Many who dictate the Fashion, and these have not always the highest Reason on their Side.

2. Consider also, that the Customs of the same Nation in different Ages, the Customs of different Nations in the same Age, and the Customs of different Towns and Villages in the same Nation, and very various and contrary to each other. The same same fashionable Learning, Language, Sentiments and Rules of Politeness differ greatly in different Countries.

is and Ages of Mankind; but Truth and Reason e of a more uniform and steady Nature, and on't change with the Fashion. Upon this Acount, to cure the Prepossessions which arise from ustom, it is of excellent Use to travel, and see the utoms of various Countries, and to read the ravels of other Men, and the History of past ges, that every thing may not feem strange and which is not practifed within the Limits our own Parish, or in the narrow Space of our wn Life-time.

3. Confider yet again, how often we our felves ve chang'd our own Opinions concerning the ecency, Propriety, or Congruity of several odes or Practices in the World, especially if we we lived to the Age of thirty or forty. Custom Fashion, even in all its Changes, has been ady to have some Degree of Ascendency over our nderstanding, and what at one time feem'd deit, appears obsolete and disagreeable afterward, hen the Fashion changes. Let us learn therete to abstract as much as possible from Custom d Fashion, when we would pass a Judgment ocerning the real Value and intrinsic Nature of hings.

III. The Authority of Men is the Spring of another

ank of Prejudices.

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Among these the Authority of our Forefathers dancient Authors is most remarkable. We pay ference to the Opinions of others, merely beon the Trifles and Impertinencies that have a start of Antiquity upon them are reverenced for Reason, because they came from the Ancie and great Men among them, and some of P 2

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their Writings, which Time hath deliver'd down to us, as truly valuable: But those Writers live rather in the Infant-State of the World; and the Philosophers, as well as the polite Authors of on Age, are properly the Elders, who have seen the Mistakes of the younger Ages of Mankind, as corrected them by Observation and Experience.

Some borrow all their Religion from the Fathers of the Christian Church, or from their some nods or Councils; but he that will read Monsie Daille on the Use of the Fathers will find man Reasons why they are by no means sit to dictate our Fath, since we have the Gospel of Christand the Writings of the Apostles and Prophets

our own Hands.

Some Persons believe every thing that the Kindred, their Parents, and their Tutors believe The Veneration and the Love which they ha for their Ancestors incline them to swallow do all their Opinions at once, without examini what Truth or Falshood there is in them. M take up their Principles by Inheritance, and fend them as they would their Estates, beca they are born Heirs to them. I freely grant, t Parents are appointed by God and Nature total us all the Sentiments and Practices of our young Years; and happy are those whose Parents k them into the Paths of Wisdom and Truth! grant farther, that when Persons come to Ye of Discretion, and judge for themselves, the ought to examine the Opinions of their Pare with the greatest Modesty, and with a hum Deference to their superior Character; they ou in Matters perfectly dubious to give the Pref ence to their Parents Advice, and always to them the first Respect, nor ever depart from the Opinions and Practice, till Reason and Conscient

nake it necessary. But after all, it is possible that Parents may be mistaken, and therefore Reason and Scripture ought to be our final Rules of Dermination in Matters that relate to this World, and that which is to come.

Sometimes a favourite Author, or a Writer of reat Name, drags a thousand Followers after him to his own Mistakes, merely by the Authority this Name and Character. The Sentiments of fistolle were imbibed and maintained by all the chools in Europe for several Centuries; and a itation from his Writings was thought a fuffient Proof of any Proposition. The great Desrtes had also too many implicit Believers in the Age, tho' he himself, in his Philosophy, difaims all fuch Influence over the Minds of his eaders. Calvin and Luther, in the Days of Rermation from *Popery*, were learned and pious len, and there have been a Succession of their sciples even to this Day, who pay too much everence to the Words of their Matters. e others who renounce their Authority, but ve themselves up in too servile a manner to the pinion and Authority of other Masters, and folwas bad or worse Guides in Religion.

If only learned, and wife, and good Men had fluence on the Sentiments of others, it would sat least a more excusable fort of Prejudice, and ere would be some Colour and Shadow of Reans for it: But that Riches, Honours, and outward lendour should set up Persons for Dictators to all erest of Mankind; this is a most shameful Insion of the Right of our Understandings on the chand, and as shameful a Slavery of the Soul the other. The poor Man or the Labourer too sen believes such a Principle in Politicks, or in smality, and judges concerning the Rights of the

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King and the People, just as his wealthy Neighbour does. Half the Parish follows the Opinion of the Esquire, and the Tenants of a Manor fall into the Sentiments of their Lord, especially if he live amongst them. How unreasonable and yet how common is this?

As for Principles of Religion, we frequent find how they are taken up and forfaken, chang' and resum'd by the Influence of Princes. In a Nations the Priests have much Power also in die tating the Religion of the People, but the Prim dictate to them: And where there is a great Pom and Grandeur attending the Priesthood in an Religion whatfoever, with fo much the more Re verence and stronger Faith do the People belief whatever they teach them: Yet it is too ofto evident that Riches, and Dominions, and his Titles in Church or State have no Manner of Pr tence to Truth and Certainty, Wisdom and Goo ness, above the rest of Mortals, because theses periorities in this World are not always confer according to Merit.

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I confess, where a Man of Wisdom and Team of Observation and Experience, gives us his on nion and Advice in Matters of the civil or to moral Life, Reason tells us we should pay a great Attention to him, it is probable he may be into Right. Where a Man of long Exercise in Pisseaks of practical Religion, there is a due De rence to be paid to his Sentiments: And the saw emay say concerning an ingenious Man long we do in any Art or Science, he may justly expected Regard when he speaks of his own Affairs a proper Business. But in other Things each of the may be ignorant enough, notwithstanding all the Piety, and Years, and particular Skill: Nore in their own proper Province are they to be belief

in every thing without Referve, and without Ex-

To free our selves from these Prejudices, it is sufficient to remember that there is no Rank nor Character among Mankind, which has any just Pretence to sway the Judgments of other Men by their Authority: For there have been Persons of the same Rank and Character who have maintain'd different and contrary Sentiments; but all these can never be true, and therefore the mere Name or Reputation that any of them, possesses,

is not a sufficient Evidence of Truth:

Shall we believe the Ancients in Philosophy? But some of the Ancients were Stoicks, some Peripatelicks, some Platonicks, and some Epicureans, some Cynics, and some Sceptics. Shall we judge of Matters of the Christian Faith by the Fathers or Primitive Writers for three or sour hundred Years after Christ? But they often contradicted one another, and themselves too; and what is worse, they sometimes contradicted the Scripture itself. Now among all these different and contrary Sentiments in Philosophy and Religion, which of the Ancients must we believe, for we cannot believe them all?

Again, To believe in all Things as our Predecessors did, is the ready way to keep Mankind in an everlasting State of Infancy, and to lay an eternal Bar against all the Improvements of our Reason and our Happiness. Had the present Age of Philosophers satisfied themselves with the substantial Forms, and occult Qualities of Aristotle, with the solid Spheres, Excentricks and Epycicles of Ptolomy, and the ancient Astronomers; then, the great Lord Bacon, Copernicus, and Descartes, with the greater Sir Isaac Newton, Mr. Locke, and Mr. Boyle, had risen in our World in vain. We must have

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have blunder'd on still in successive Generations amongst Absurdities and thick Darkness, anda hundred useful Inventions for the Happiness of

human Life had never been known.

Thus it is in Matters of Philosophy and Science. But, you will fay, shall not our own Ancestors determine our Judgment in Matters of civil or religious Concernment? If they must, then the Child of a Heathen must believe that Heathenism is Truth; the Son of a Papist must affent to all the Absurdities of Popery; the Posterity of the Jews and Socinians must for ever be Socinians and Jews; and a Man, whose Father was of Republican Principles, must make a Succession of Republicans in his Family to the End of the World. If we ought always to believe whatfoever our Parents, or our Priests, or our Princes believe, the Inhabitants of China ought to worship their own Idols, and the Savages of Africa ought to believe all the Nonfense, and practise the Idolatry of their Negro Fathers and Kings. The British Nation, when it was Heathen, could never have become Christian; and when it was a Slave to Rome, it could never have been reform'd.

Besides, let us consider that the great God, our common Maker, has never given one Man's Understanding a legal and rightful Sovereignty to de termine Truth for others, at least after they are past the State of Childhood or Minority. No fingle Person, how learned and wise, and great soever, of whatfoever natural, or civil, or ecclefiastical Relation he may have to us, can claim this Dominion over our Faith. St. Paul the Apostle, in his private Capacity would not do it; nor hath an in spired Man any such Authority, until he makes his divine Commission appear. Our Saviour himsel tells the Jews, that if he had not done such won drou

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drous Works among them, they had not sinned in difbelieving his Doctrines, and refusing him for the Messab. No Bishop or Presbyter, no Synod or Council, no Church or Affembly of Men, (fince the Days of Inspiration) hath Power derived to them from God to make Creeds or Articles of Faith for us, and impose them upon our Understandings. We must all act according to the best of our own Light, and the Judgment of our own Consciences, using the best Advantages which Providence hath given us, with an honest and impartial Diligence to enquire and fearch out the Truth; For every one of us must give an Account of bimself to God. To believe as the Church, or the Court believes, is but a forry and a dangerous Faith: This Principle would make more Heathens than Christians, and more Papists than Protestants; and perhaps lead more Souls to Hell than to Heaven; for our Saviour himself has plainly told us, that if the Blind will be led by the Blind, they must both fall into the Ditch.

Tho' there be so much Danger of Error arising from the three Prejudices last mention'd, yet before I dismiss this Head, I think it proper to take Notice, that as Education, Custom and Authority are no fure Evidences of Truth, so neither are they certain Marks of Falsbood; for Reason and Scripture may join to dictate the same Things which our Parents, our Nurses, our Tutors, our Friends, and our Country believe and profess. Yet there appears sometimes in our Age a Pride and Petulancy in Youth, zealous to cast off the Sentiments of their Fathers and Teachers on Purpose to shew that they carry none of the Prejudices of Education and Authority about them. They indulge all manner of licentious Opinions and Practices, from a vain Pretence of afferting their Liberty. But

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alas! This is but changing one Prejudice for another; and sometimes it happens by this means, that they make a Sacrifice both of Truth and Virtue to the vile Prejudices of their Pride and Senfuality.

IV. There is another Tribe of Prejudices which are near akin to those of Authority, and that is when we receive a Doctrine because of the Manner in which it is proposed to us by others. I have already mentioned the powerful Influence that Oratory and fine Words have to infinuate a salse Opinion, and sometimes Truth is refused, and suffers Contempt in the Lips of a wise Man, for want of the Charms of Language: But there are several other Manners of Proposal whereby mistaken Sentiments are powerfully conveyed into the Mind.

Some Persons are easily persuaded to believe what another dictates with a positive Air and a great Degree of Assurance: They feel the overbearing Force of a confident Dictator, especially if he be of superior Rank or Character to themselves.

Some are quickly convinced of the Truth of any Doctrine, when he that proposes it puts on all the Airs of Piety, and makes solemn Appeals to Heaven, and Protestations of the Truth of it: The pious Mind of a weaker Christian is ready to receive any thing that is pronounced with such an awful Solemnity.

It is a *Prejudice* near akin to this, when a humble Soul is frighted into any particular Sentiments of Religion, because a Man of great Name of Character pronounces *Heresy* upon the contrary Sentiments, casts the Disbeliever out of the Church,

and forbids him the Gates of Heaven.

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Others are allured into particular Opinions by gentler Practices on the Understanding: Not only the softer Tempers of Mankind, but even hardy and rugged Souls are sometimes led away Captives to Error by the soft Airs of Address, and the sweet and engaging Methods of Persuasion and Kind-

ness.

I grant, where natural or reveal'd Religion plainly dictate to us the infinite and everlasting Importance of any facred Doctrine, it cannot be improper to use any of these Methods to persuade Men to receive and obey the Truth, after we have given fufficient Reason and Argument to convince their Understandings, Yet all these Methods considered in themselves, have been often used to convey Falshood into the Soul as well as Truth; and if we build our Faith merely upon these Foundations, without Regard to the Evidence of Truth and the Strength of Argument, our Belief is but the Effect of Prejudice: For neither the positive, the awful or solemn, the terrible or the gentle Methods of Address carry any certain Evidence with them that Truth lies on that Side.

There is another Manner of proposing our own Opinion, or rather opposing the Opinions of others, which demands a mention here, and that is when Persons make a fest serve instead of an Argument; when they resute what they call Error by a Turn of Wit, and answer every Objection against their own Sentiments, by casting a Sneer upon the Objector. These Scoffers practise with Success upon weak and cowardly Spirits: Such as have not been well established in Religion or Morality, have been laughed out of the best Principles by a confident Bustoon; they have yielded up their Opinions to a witty Banter, and sold their Faith and Religion for a fest.

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There is no Way to cure these Evils in such a degenerate World as we live in, but by learning to distinguish well between the Substance of any Dostrine, and the manner of Address either in proposing, attacking, or defending it; and then by setting a just and severe Guard of Reason and Conscience over all the Exercises of our Judgment, resolving to yield to nothing but the convincing Evidence of Truth, religiously obeying the Light of Reason in Matters of pure Reason, and the Dictates of Revelation in Things that relate to our Faith.

Thus we have taken a brief Survey of some of the infinite Varieties of Prejudice that attend Mankind on every side in the present State, and the Dangers of Error or of rash Judgment, we are perpetually exposed to in this Life: This Chapter shall conclude with one Remark, and one Piece of Advice.

The Remark is this. This same Opinion, whether false or true, may be dictated by many Prejudices at the same time; for as I hinted before, Prejudice may happen to dictate Truth sometimes as well as Error. But where two or more Prejudices oppose one another, as it often happens, the stronger prevails and gains the Assent: Yet how seldom does Reason interpose with sufficient Power to get the Ascendant of them all as it ought to do!

The Advice follows, (viz.) Since we find such a swarm of Prejudices attending us both within and without; since we feel the Weakness of our Reason, the Frailty of our Natures, and our Insufficiency to guard our selves from Error upon this Account, it is not at all unbecoming the Character of a Logician or a Philosopher (together with the Advice already given) to direct every Person in his Search after Truth to make his daily Addresses.

dresses to Heaven, and implore the God of Truth to lead him into all Truth, and to ask Wisdom of bim who giveth liberally to them that ask it, and upbraideth us not with our own Follies.

Such a devout Practice will be an excellent Preparative for the best Improvement of all the Directions and Rules proposed in the two following

Chapters.

C.IV.

CHAP. IV.

General Directions to affift us in judging aright.

HE chief Design of the Art of Logick is to I affift us in forming a true Judgment of Things; a few proper Observations for this End have been dropt occasionally in some of the foregoing Chapters: Yet it is necessary to mention them again in this Place, that we may have a more compleat and fimultaneous View of the general Directions, which are necessary in order to judge aright. A Multitude of Advices may be framed for this Purpose; the chief of them may, for Order fake, be reduced to the following Heads.

I. Direct. When we consider our selves as Philosophers, or Searchers after Truth, we should examine all our old Opinions afresh, and enquire what was the Ground of them, and whether our Affent were built on just Evidence; and then we should cast off all those Judgments which were formed heretofore without due Examination. A Man in pursuit of Knowledge should throw off all those Prejudices

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dices which he had imbib'd in Times past, and guard against all the Springs of Error mention'd in the preceding Chapter, with utmost Watchfulness for Time to come.

Observe here, that this Rule of casting away all our former prejudicate Opinions and Sentiments, is not proposed to any of us to be practised at once, confidered as Men of Business, or Religion, as Friends or Neighbours, as Fathers or Sons, as Magistrates, Subjects or Christians; but merely as Philosophers and Searchers after Truth: And tho' it may be well prefum'd that many of our Judgments, both true and false, together with the Practices built thereon in the natural, the civil and the religious Life were formed without sufficient Evidence: yet an universal Rejection of all these might destroy at once our present Sense and Practice of Duty with Regard to God, our Selves, and our Fellow-Creatures. Mankind would be hereby thrown into fuch a State of Doubting and Indifference, that it would be too long e're they recover'd any Principles of Virtue or Religion by a Train of Reasonings.

Besides, the common Affairs of human Life often demand a much speedier Determination, and we must many times act upon present Probabilities: The Bulk of Mankind have not Time and Leisure, and Advantages sufficient to begin all their Knowledge anew, and to build up every single Opinion and Practice afresh upon the justest

Grounds of Evidence.

Yet let it be observed also, that so far as any Person is capable of forming and correcting his Notions and his Rules of Conduct in the natural, civil and religious Life by the strict Rules of Logick; and so far as he hath Time and Capacity to review his old Opinions, to re-examine all those which

which are any Way doubtful, and to determine nothing without just Evidence, he is likely to become so much the wiser, and the happier Man, and (if Divine Grace assist him) so much the better Christian. And the this cannot be done all at once, yet it may be done by prudent Steps and Degrees, till our whole Set of Opinions and Principles be in time corrected and reformed, or at least established upon juster Foundations.

II. Direct. Endeavour that all your Ideas of those Objects concerning which you pass any Judgment, be dear and distinct, compleat, comprehensive, extensive and orderly, as far as you have Occasion to judge concerning them. This is the Substance of the last Chapter of the first Part of Logick. The Rules which direct our Conceptions, must be review'd, if we would form our Judgments aright. But if we will make haste to judge at all Adventures, while our Ideas are dark and confused and very imperfect, we shall be in Danger of running into many Mistakes. This is like a Person who would pretend to give the Sum total of a large Account n Arithmetick, without surveying all the Particuars; or as a Painter who professes to draw a fair and distinct Landskip in the Twilight, when he can hardly distinguish a House from a Tree.

Observe here, that this Direction does not require us to gain clear, distinct, compleat Ideas of Things in all their Parts, Powers, and Qualities in an absolute Sense, for this belongs to God alone, and is impossible for us to attain: But it is expression a relative or limited Sense; that is, our Ideas hould be clear, distinct and comprehensive, &c. It least so far as we have Occasion at that time to sudge concerning them. We may form many true and certain Judgments concerning God, Angels,

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Animals, Men, Heaven, Hell, &c. by those partial and very imperfect Conceptions of them to which we have attain'd, if we judge no farther concern.

ing them than our Conceptions reach.

We may have a clear and distinct Idea of the Existence of many Things in Nature, and affirm that they do exist, tho' our Ideas of their Intimate Essences and Causes, their Relations and Manners of Action are very confused and obscure. We may judge well concerning feveral Properties of any Being, tho' other Properties are unknown, for perhaps we know not all the Properties of any Being whatfoever.

Sometimes we have clear Ideas of the absolute Properties of an Object; and we may judge of them with Certainty, while the relative Proper. ties are very obscure and unknown to us. So we may have a clear and just Idea of the Area of a Parallelogram without knowing what Relation it bears to the Area of a Triangle or a Polygon. I may know the length of the Diameter of a Circle, without knowing what Proportion it has to the Cir-

cumference.

There are other Things whose external Relative Properties with respect to each other, or whole Relations to us we know better than their own inward and absolute Properties, or their effential distinguishing Attributes. We perceive clearly, that Fire will warm or burn us, and will evaporate Water; and that Water will allay our Thirst, or quench the Fire, tho' we know not the inwarddiltinguishing Particles or prime effential Properties We may know the King, and of Fire or Water. Lord Chancellor, and affirm many Things of them in their legal Characters, tho' we can have but a confused Idea of their Persons or natural Features, it we have never seen their Faces. So the Scrip m'c if we have never feen their Faces. So the Scrip ture

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are has reveal'd God himself to us, as our Crewr, Preserver, Redeemer, and Sanctifier, and as ne Object of our Worship in clearer Ideas than it as reveal'd many other abstruse Questions which may be raised about his own Divine Essence or ubstance, his Immensity or Omnipresence.

This therefore is the general Observation in orer to guide our Judgments, that we should not alw our selves to form a Judgment concerning Things rther than our clear and distinct Ideas reach, and

en we are not in danger of Error.

But there is one considerable Objection against is Rule which is necessary to be answer'd; and ere is one just and reasonable Exception, which is needful to be mention'd.

The Objection is this: May we not judge fafely ncerning some total or compleat Ideas, when we we a clear Perception only of some Parts or operties of them? May we not affirm, that All it is in God is eternal, or that all his unknown tributes are infinite, tho' we have so very imperfan Idea of God, Eternity and Infinity? Again, ay we not safely judge of particular Objects of Idea is obscure by a clear Idea of the Gele al? May I not affirm, that every unknown Speof Animals has inward Springs of Motion, bele I have a clear Idea that these inward Springs ong to an Animal in general?

Answer. All those supposed unknown Parts, Proor thes or Species are clearly and distinctly perceivto be connected with, or contain'd in the wn Parts, Properties or general Ideas, which suppose to be clear and distinct as far as we ge of them: And as we have no particular of those unknown divine Attributes, or unknown res, sies of Animals; so there is nothing particular m'd concerning them beyond what belongs to

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the general Idea of Divine Attributes or Animals with which I clearly and distinctly perceive then to be connected.

It may be illustrated in this manner. Suppose a long Chain lies before me, whose nearest Links see are Iron Rings, and I see them fasten'd to a Pole near me, but the most distant Links lie beyond the reach of my Sight, so that I know not whether they are Oval or Round, Brass or Iron: Now may boldly affirm the whole Length of this Chais fastened to the Post, for I have a clear Idea the the nearest Links are thus fasten'd, and a clear Idea that the distant Links are connected with the nearest, if I can draw the whole Chain by on Link.

Or thus; If two known Ideas, A and Ba evidently join'd, or agree, and if C unknown included in A, and also D unknown be included in B, then I may affirm that C and D are join and agree; for I have a clear Perception of the Union of the two known Ideas A and B; a also a clear Perception of the Connexion of the unknown Ideas with the known. So that do and distinct Ideas must still abide as a general cessary Qualification in order to form right Juments: and indeed, it is upon this Foot that Ratiocination is built, and the Conclusions are to formed, which deduce Things unknown for Things known.

Yet it seems to me that there is one just mitation or Exception to this general Rule of sument, as built on clear and distinct Ideas, and is this;

Exception. In Matters of mere Testimony, who human or divine, there is not always a Necessity of and distinct Ideas of the Things which are belief Tho' the Evidence of Propositions, which are

tirely formed by ourselves, depends on the Clearness and Distinctness of those Ideas of which they are composed, and on our own clear Perception of their Agreement or Disagreement, yet we may justly assent to Propositions form'd by others, when we have neither a very clear Conception in our selves of the two Ideas contained in the Words, nor how they agree or disagree; provided always that we have a clear and sufficient Evidence of the

Credibility of the Persons who inform us.

Thus when we read in Scripture the great Doctrines of the Deity of Christ, of the Union of the divine and human Natures in him, of the divine Agenty of the blessed Spirit, that the Son is the Brightness of his Father's Glory, that all Things were created by him, and for him, that the Son shall give up his kingdom to the Father, and that God shall be all in all, we may safely believe them: For the our ldeas of these Objects themselves are not sufficiently clear, distinct, and perfect, for our own Minds to form these Judgments or Propositions concerning them, yet we have a clear and distinst Perception of God's revealing them, or that they are contain'd in Scripture; and this is sufficient Evidence to determine our Assent.

The same Thing holds true in some measure, where credible buman Testimony assures us of some Propositions, while we have no sufficient Ideas of the Subject and Predicate of them to determine our Assure. So when an honest and learned Mahematician assures a Plowman that the three Andles of a Triangle are equal to two right Angles, or that the Square of the Hypotenuse of a right-angled Iriangle is equal to the Sum of the Squares of the wo Sides; the Plowman, who has but confus'd deas of these Things, may firmly and safely believe these Propositions upon the same Ground, because

because he has Evidence of the Skill and Faith. fulness of his Intormer *.

III. Direction. When you have obtained as clear and comprehensive Ideas as is needful, both of the Subject and Predicate of a Proposition, then compare those Ideas of the Subject and Predi-

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* Perhaps some may object against this Representation of Things, and fay, that "We cannot properly be faid to believe a Proposition any farther than we ourselves have Ideas under the Terms: Therefore if we have m

" Ideas under the Terms, we believe nothing but the Connection of Words

or Sounds; and if we have but obscure and inadequate Ideas under the Terms, then we partly believe a Connection of Things, and partly a Connection of Sounds: but that we cannot properly be said to believe the

er Proposition, for our Faith can never go behond our Ideas.

Now to fet this Matter in a clear Light, I suppose that every Proposition which is proposed to my Assent, is a Sentence made up of Terms which have some Ideas under them, known or unknown to me. I confes, if I believe there are no Ideas at all under the Terms, and there is nothing meant by them, then indeed (with regard to me) it is the mere joining of Sounds: But if (for instance) a Plowman has credible Information from an honest and skilful Mathematician, that an Ellipsis is made by the Section of a Cone, he believes the Proposition, or he believes the Sentence is true, as it is made up of Terms which his Informant understands, tho' the Ideas be unknown to him; that is, he believes there are some Ideas which his hormant has under these Words which are really connected. And, I think this may justly be called, believing the Proposition, for it is a Belief of some thing more than the mere joining of Sounds; it is a belief of the real Con-nection of some unknown Ideas belonging to those Sounds: and in the Sense a Man may be said to believe the Truth of a Proposition, which doth not understand at all.

With more Reason still may we be said to believe a Proposition upon or dible Testimony, if we have some fort of Ideas under the Terms, tho' the are but partial or inadequate, and obscure; such as Divine Answers were given by Urim and Thummim: For fince it is purely upon Testimony we be lieve the known Parts of the Ideas fignified by those Words to be connected upon the same Testimony we may also believe all the unknown Parts of the Ideas fignified by those Words to be connected, (viz.) because our Information is knowing and faithful. And in this Sense we may justly be said to belie a Proposition of Scripture entirely, which we understand but very imperfelly because God who reveals it is knowing and faithful in Perfection.

And indeed, unless this Representation of the Matter be allowed, therea but very few Propositions in the World, even in buman Things, to while we can give an entire Affent, or which we may be faid either to know, to believe, because there is scarce anything on Earth of which we have adequate and most perfect Idea. And it is evident that in Divine Thing there is scarce any thing which we could either know or believe withou this Allowance: For the' Reason and Revelation join to inform me, the God is boly, how exceeding inadequate are my Ideas of God, and of his h liness? yet I may boldly and entirely affent to this whole Proposition, in I am fure that every known and unknown Idea fignified by the Term 6 C. IV.

tate together with utmost Attention, and observe how far they agree, and wherein they differ: Whether the Proposition may be affirmed Absolutely or Relatively, whether in Whole or in Part, whether Universally or Particularly, and then under wha, particular Limitations. Turn these Ideas about in your Mind, and take a View of them on all Sides, just as a Mason would do to see whether two hewn Stones exactly fuit each other in every Part, and

is connected with the Ideas of the Term Holiness, because Reas n partly informs me, but especially because the Divine Testimony which has connected

them, is certainly credible.

I might argue upon this Head perhaps more forcibly from the Doctrine of God's Incomprehenfibleness. If we could believe nothing but what we have Ideas of, it would be impossible for us to believe that God is Incomprehensiable: For this implies in it a Belief, that there are some unknown Ideas belonging to the Nature of God. Therefore we do both believe and profefs that fomething concerning unknown Ideas, when we believe and profess that

God is Incomprehensible.

I persuade myself that most of those very Persons who object against my Representation of Things, will yet readily confess, they believe all the Propo-ficens in Scripture, rather than declare They do not believe several of them; the' they must acknowledge that several of them are far above their Underfinding, or that they have scarce any Ideas of the true Sense of them. And therefore where Propositions deriv'd from credible Testimony are made up of dark or inadequate Ideas, I think it is much more proper to fay, We believe them, than that We do not believe them, left we cut off a Multitude of the Propositions of the Bible from our Assent of Faith.

Yet let it be observed here, that when we believe a Proposition on mere Testimony, of which we have no Ideas at all, we can only be said to give a general implicit Assent to the Truth of that Proposition, without any particular Knowledge of, or explicit Assent to the special Truth contained in that Proposition: And this our implicit Assent is of very little Use, unless it be to testify wer Belief of the Knowledge and Veracity of him that informs us.

As our Ideas of a Proposition are more or less clear and adequate, as well in just and proper, so we do explicitly assent more or less to the particular such contained in that Proposition. And our Assent hereby becomes more or less useful for the Encrease of our Knowledge or the Direction of our

When Divine Testimony plainly proposes to our Faith such a Proposition whereof we have but obscure, doubtful and inadequate Ideas, we are bound implicitly to believe the Truth of it, as exprest in those Terms, in order to hew our Submission to God who revealed it, as a God of perfect Knowkdge and Veracity: But it is our Duty to use all proper Methods to obtain farther and explicit Knowledge of the particular Truth contained in the Proposition, if we would improve by it either in Knowledge or Virtue. Mceffary Rules of Grammar and Criticism should be employed to find out the very Ideas that belong to those Words, and which were defigned by the Divine Speaker or Writer. Tho' we may believe the Truth of a Proposition which we do not understand, yet we should endeavour to understand every Proposition which we believe to be true.

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are fit to be join'd in erecting a carved or fluted Pillar.

Compare the whole Subject with the whole Predicate in their several Parts: Take heed in this Matter that you neither add to, or diminish the Ideas contain'd in the Subject or in the Predicate; for such an Inadvertence or Mistake will expose you to great Error in Judgment.

IV. Direct. Search for Evidence of Truth with Diligence and Honesty, and be heartily ready to receive Evidence, whether for the Agreement or Dif-

agreement of Ideas.

Search with Diligence; spare no Labour in searching for the Truth in due Proportion to the Importance of the Proposition. Read the best Authors who have writ on that Subject; consult your wise and learn'd Friends in Conversation; and be not unwilling to borrow Hints toward your Improvement, from the meanest Person, nor to receive any Glimpse of Light from the most Unlearned. Diligence and Humility is the Way to thrive in the Riches of the Understanding, as well as in Gold or Silver. Search carefully so the Evidence of Truth, and dig for Wisdom as so bid Treasure.

Search with a steady Honesty of Soul, and a sincere Impartiality to find the Truth. Watch against every Temptation that might bribe your Judgment, or warp it aside from Truth. Do not include yourself to wish any unexamined Proposition were true or false. A Wish often perverts the Judgment, and tempts the Mind strangely to believe upon slight Evidence whatsoever we wish to be true, or to renounce whatsoever we wish to be

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V. Direct. Since the Evidence of the Agreement or Disagreement of two Ideas is the Ground of our Assent to any Proposition, or the great Criterion of Truth; therefore we should suspend our Judgment, and neither affirm or deny till this Evi-

dence appear.

This Direction is different from the second; for tho' the Evidence of the Agreement or Disagreement of two Ideas most times depend on the Clearness and Distinctness of the Ideas themselves, yet it does not always arise thence. Testimony may be a sufficient Evidence of the Agreement or Disagreement of two obscure Ideas, as we have seen just before in the Exception under the second Direction. Therefore, tho' we are not univerfally and in all Cafes bound to fuspend our Judgment till our Ideas of the Objects themselves are clear and distinct, yet we must always suspend our Judgment, and withhold our Assent to, or Denial of any Proposition, till some just Evidence appear of its Truth or Falfbood. It is an Impatience of Doubt and Sufpence, a Rashness and Precipitance of Judgment, and Hastiness to believe something on one Side or the other, that plunges us into many Errors.

This Direction to delay and suspend our Assent, is more particularly necessary to be observed when such Propositions offer themselves to us as are supported by Education, Authority, Custom, Inclination, Interest, or other powerful Prejudices; for our Judgment is led away insensibly to believe all that they dictate; and where Prejudices and Dangers of Error are multiplied, we should set the

tricter Guard upon our Affent.

Yet remember the Caution or Limitation here which I gave under the first Direction, (viz.) that his is not to be too strictly applied to Matters of haily Practice, either in human Life or Religion;

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but when we consider ourselves as Philosophers or Searchers after Truth, we should always with hold our Assent where there is not just Evidence: And as far and as fast as we can in a due Consistence with our daily necessary Duties we should also reform and adjust all our Principles and Practices both in Religion and the civil Life by these Rules.

VI. Direct. We must judge of every Proposition by those proper and peculiar Mediums or Means whereby the Evidence of it is to be obtain'd, whether it be Sense, Consciousness, Intelligence, Reason, or Testimony. All our Faculties and Powers are to be employ'd in judging of their proper Objects.

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If we judge of Sounds, Colours, Odours, Sapors, the Smoothness, Roughness, Softness, or Hardness of Bodies, it must be done by the Use of our Senses. But then we must take heed that our Senses are

well disposed, as shall be shewn afterward.

And since our Senses in their various Exercises are in some Cases liable to be deceived, and more especially when by our Eyes or Ears we judge of the Figure, Quantity, Distance and Position of Objects that are afar off, we ought to call our Reason into the Assistance of our Senses, and correct the Errors of one Sense by the help of another.

It is by the Powers of Sense and Reason join's together that we must judge philosophically of the inward Nature, the secret Properties and Powers, the Causes and Effects, the Relations and Proportions of a thousand corporeal Objects which surround us on Earth, or are placed at a distance in the Heavens. If a Man on the one hand confines himself only to sensible Experiments, and does not exercise Reason upon them, he may surprish himself.

himself and others with strange Appearances, and learn to entertain the World with Sights and Shews, but will never become a Philosopher: And on the other hand, if a Man imprison himself in his Closet, and employ the most exquisite Powers of Reason to find out the Nature of Things in the corporeal World, without the Use of his Senses, and the Practice of Experiments, he will frame to himself a Scheme of Chimeras instead of true Philosophy. Hence came the Invention of Substantial Forms and Qualities, of Materia Prima and Privation, with all the infignificant Names used by the Peripatetick Writers; and it was for want of more Experiments that the Great Defcartes fail'd in several Parts of his philosophical Writings.

In the abstracted and speculative Parts of the Mathematicks, which treat of Quantity and Number, the Faculty of Reason must be chiefly employ'd to perceive the Relation of various Quantities, and draw certain and useful Conclusions; but it wants the Assistance of Sense also to be acquainted with Lines, Ancles and Figures. And in practical Mathematicks our Senses have still greater Employ-

ment.

If we would judge of the pure Properties, and Actions of the Mind, of the Nature of Spirits, their various Perceptions and Powers, we must not enquire of our Eyes and our Ears, nor the Images or Shapes laid up in the Brain, but we must have recourse to our own Consciousness of what passes within our own Mind.

If we are to pass a Judgment upon any thing that relates to Spirits in a State of Union with Animal Nature, and the mixt Properties of Sensation, Fancy, Appetite, Passion, Pleasure and Pain, which arise thence, we must consult our own Sensations and the other Powers

Powers which we find in ourselves consider'd as Men or Creatures made up of a Mind and an Animal; and by just Reasonings deduce proper Consequences, and improve our Knowledge in these Subjects.

If we have Occasion to judge concerning Mat. ters done in past Ages, or in distant Countries, and where we ourselves cannot be present, the Powers of Sense and Reason (for the most part) are not sufficient to inform us, and we must therefore have recourse to the Testimony of others: and this is either divine or human.

In Matters of mere human Prudence, we shall find the greatest Advantage by making wise Observations on our own Conduct, and the Conduct of others, and a Survey of the Events attending such Conduct. Experience in this Case is equal to a natural Sagacity, or rather superior. A Treasure of Observations and Experiences collected by wise Men, is of admirable Service here. And perhaps there is nothing in the World of this kind equal to the sacred Book of Proverbs, even if we look on it as a mere human Writing.

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In Questions of Natural Religion we must exercise the Faculty of Reason which God has given us; and since he has been pleased to afford us his Word, we should confirm and improve or correct our Reasonings on this Subject by the Divine As-

fistance of the Bible.

In Matters of reveal'd Religion, that is, Christianity, Judaism, &c. which we could never have known by the Light of Nature, the Word of God is our only Foundation and chief Light; tho' here our Reason must be used both to find out the true Meaning of God in his Word, and to derive just Interences from what God has written, as well as to judge of the Credentials whereby Divine Testimony, or from Imposture.

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As Divine Revelation can never contradict right Reason, (for they are two great Lights given us by our Creator for our Conduct) so Reason ought by no Means to assume to itself a Power to contradict Divine Revelation.

Tho' Revelation be not contrary to Reason, yet there are four Cases wherein Matters of Revelation may be said to rise above, or go beyond our

Reason.

1. When Revelation afferts two Things of which we have clear Ideas, to be join'd, whose Connection or Agreement is not discoverable by Reason; as when Scripture informs us that The Dead shall rise, that The Earth shall be burnt up, and the Man Christ Jesus shall return from Heaven, none of these Things could ever be found out or proved by Reason.

2. When Revelation affirms any Proposition, while Reason has no clear and distinct Ideas of the Subject, or of the Predicate; as God created all Things by Jesus Christ: By the Urim and Thummim God gave forth Divine Oracles. The Predicate of each of these Propositions is to us an obscure Idea, for we know not what was the peculiar Agency of Jesus Christ when God the Father created the World by him; nor have we any clear and certain Conception what the Urim and Thummim were, nor how God gave Answers to his People by them.

3. When Revelation, in plain and express Language, declares some Dostrine which our Reason at present knows not with evidence and certainty how or in what Sense to reconcile to some of its own Principles; as, that the Child Jesus is the mighty God, Esa. ix. 6. which Proposition carries a seeming Opposition to the Unity and Spirituality of the Godhead,

which are Principles of Reason.

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4. When two Propositions or Doctrines are plainly afferted by divine Revelation, which our Reason at present knows not how or in what Sense with Evidence and Certainty to reconcile with one another; as, The Father is the only true God, John xvii. 3. and yet Christ is over all, God blessed for ever, Rom. ix. 5.

Now divine Revelation having declared all these Propositions, Reason is bound to receive them, because it cannot prove them to be utterly inconsistent or impossible, tho' the Ideas of them may be obscure, tho' we ourselves see not the rational Connection of them, and tho' we know not certainly how to reconcile them. In these Cases Reason must submit to Faith; that is, we are bound to believe what God Asserts, and wait till he shall clear up that which seems dark and difficult, and till the Mysteries of Faith shall be farther explained to us either in this World or in the World to come*, and Reason itself dictates this Submission.

VIIth Direction. It is very useful to have some general Principles of Truth settled in the Mind, whose Evidence is great and obvious, that they may be always ready at hand to assist us in judging of the great Variety of Things which occur. These may be called first Notions, or fundamental Principles for the many of them are deduced from each other, yet most or all of them may be called Principles when compared with a thousand other Judgments which we form under the Regulation and Influence of these primary Propositions.

Every Art and Science, as well as the Affairs of civil Life and Religion, have peculiar Principles of this kind belonging to them. There are Metaphysical, Physical, Mathematical, Political, Occanomical, Medicinal, Theological, Moral and Pru.

^{*}See fomething more on this Subject, Direct. II. preced. and Chap. V. Sea. 6

dential Principles of Judgment. It would be too tedious to give a Specimen of them all in this Place. Those which are of the most universal Use to us both as Men and as Christians, may be found in the following Chapter among the Rules of Judgment about particular Objects.

VIIIth Direction. Let the Degrees of your Assent wevery Proposition bear an exact Proportion to the different Degrees of Evidence. Remember this is one of the greatest Principles of Wisdom that Man can arrive at in this World, and the best human Security against dangerous Mistakes in Specula-

tion or Practice.

In the Nature of Things of which our Knowedge is made up there is infinite Variety in their Degrees of Evidence. And as God hath given our Minds a Power to suspend their Assent till the Evidence be plain, so we have a Power to receive Things which are proposed to us with a fronger or weaker Belief in infinite Variety of Degrees proportionable to their Evidence. I believe that the Planets are inhabited, and I believe that the Earth rolls amongst them yearly round the Sun; but I don't believe both these Propositions with an equal Firmness of Assent, because the Arguments for the latter are drawn from mathematical Observations; but the Arguments for the former are but probable Conjectures and moral Reasonings. Yec neither do I believe either of these Propositions so firmly, as I do that the Earth is about twenty four bousand Miles round, because the mathematical Proof of this is much easier, plainer and stronger. And yet farther, when I say that the Earth was treated by the Power of God, I have still a more infallible Assurance of this than of all the rest, because Reason and Scripture join to assure me of it. IXth Dia

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IXth Direction. Keep your Mind always open to receive Truth, and never set Limits to your own Improvements. Be ready always to hear what may be objected even against your favourite Opinions, and those which have had longest Possession of your Assent. And if there should be any new and uncontroulable Evidence brought against these older beloved Sentiments, don't wink your Eyes sast against the Light, but part with any thing for the sake of Truth: Remember when you overcome an Error you gain Truth; the Victory is on your Side and the Advantage is all your own.

Side, and the Advantage is all your own.

I confess those grand Principles of Belief and Practice which univerfally influence our Conduct both with Regard to this Life and the Life to come, should be supposed to be well settled in the first Years of our Studies, such as, the Existence and Providence of God, the Truth of Christianity, the Authority of Scripture, the great Rules of Mo-We should avoid a light fluttering rality, &c. Genius, ever ready to change our Foundations, and to be carried about with every Wind of Doc-To guard against which Inconvenience, we should labour with earnest Diligence and fervent Prayer, that our most fundamental and important Points of Belief and Practice may be establish'd upon just Grounds of Reason and Scrip ture when we come to Years of Discretion, and fit to judge for ourselves in such important Points Yet since it is impossible that the Folly or Prejudice of younger Years may have establish'd Persons in some miltaken Sentiments, even in very important Matters, we should always hold ourselves ready to receive any new Advantage toward the Correction or Improvement even of our establish'd Principles as well as Opinions of lesser Moment. CHAP

CHAP. V.

Special Rules to direct us in judging of particular Objects.

I T would be endless to run thro' all those particular Objects concerning which we have Occasion to pass a Judgment at one time or another. Things of the most frequent Occurrence, of the widest Extent, and of the greatest Importance, are the Objects and Exercises of Sense, of Reason, and Speculation, the Matters of Morality, Religion and Prudence, of buman and divine Testimony, together with the Essays of Reasoning upon Things past and suture. Special Rules relating to all these will be the Subject of the following Sections.

SECT. I.

Principles and Rules of Judgment concerning the Objects of Sense.

THO' our Senses are sometimes liable to be deceived, yet when they are rightly disposed, and sitly exercised about their proper Objects, with the just Assistance of Reason, they give us sufficient Evidence of Truth.

This may be proved by an Argument drawn from the Wisdom, Goodness, and Faithfulness of God our Creator. It was he gave us our Senses, and he would not make us of such a Constitution as to be liable to perpetual Deception and unavoidable Error in using these Faculties of Sense in the best manner we are capable of, about these

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very Things which are the proper Objects of them.

This may be proved also by the ill Consequences that would follow from the Supposition of the contrary. If we could have no Certainty of the Dictates of our Senses, we could never be sure of any of the common Affairs and Occurrences of Life. Men could not transact any of their civil or moral Concerns with any Certainty or Justice; nor indeed could we eat or drink, walk or move with Safety. Our Senses direct us in all these.

Again, the Matters of Religion depend in some Measure upon the Certainty of the Dictates of Sense; for Faith comes by Hearing; and it is to our Senses that God appeals in working Miracles to prove his own Revelation. Now if when our Eyes and Ears, and other Organs of Sense are rightly disposed and exercised about their proper Objects, they were always liable to be deceived, there could be no Knowledge of the Gospel, no Proof of divine Revelation by Visions, Voices, or Miracles.

Our Senses will discover Things near us and round about us, which are necessary for our present State with sufficient Exactness, and Things distant also, so far as they relate to our necessary Use of them.

Nor is there need of any more accurate Rules for the Use of our Senses in the Judgment of all the common Affairs of Life, or even of miraculous and divine Operations, than the vulgar Part of Mankind are sufficiently acquainted with by Nature, and by their own daily Observations.

But if we would express these Rules in a more exact manner, bow to judge by the Dictates of our Senses, they should be represented thus.

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in the must take care that the Organs of our sense be rightly dispos'd, and not under the Power of any Distemper or considerable Decay; as for instance, that our Eyes are not tinctured with the saundice, when we would judge of Colours, less the pronounce them all yellow: That our Hands is not burning in a Fever, nor benumm'd with frost or the Palsy, when we would judge of the sense or Coldness of any Object: That our Palate is not vitiated by any Disease, or by some other inproper Taste, when we would judge of the true afte of any Solid or Liquid. This Direction restes to all our Senses, but the following Rules hiefly refer to our Sight.

2. We must observe whether the Object be at proper Distance, for if it be too near or too far st, our Eyes will not sufficiently distinguish may Things which are properly the Objects of ight; and therefore (if possible) we must make earer Approaches to the Object, or remove farer from it, till we have obtained that due Disnee which gives us the clearest Perception.

3. We must not employ our Sight to take a all Survey at once of Objects that are too large for but we must view them by Parts, and then dge of the Whole: Nor must our Senses judge Objects too small, for some Things which apart thro' Glasses to be really and distinctly exist, are either utterly invisible, or greatly consid when we would judge of them by the naked ye.

4. We must place ourselves in such a Position ward the Object, or place the Object in such a still sti

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Position both of the Eye and the Object in som Cases, that by viewing the Object in several Appearances we may pass a more compleat and complete and complete the object in several Appearances.

tain Judgment concerning it.

5. We must consider what the Medium is a which Objects are represented to our Senses; who ther it be thinner or thicker; whether it be Air or Vapour, or Water, or Glass, &c. whether be duly enlightned or dusky; whether it rested or refract, or only transmit the Appearance of the Object; and whether it be tinctured with an particular Colour; whether it be moving or a Rest.

6. We must sometimes use other Helps to assorber Speaking-Trumpets, which assorbers and if we make use of Glasses, which the Seames of them, for the Clearness or Duness, for the Smoothness or Roughness, for the Plainness, the Convexity or Concavity of them and for the Distance at which these Glasses a placed from the Eye, or from the Object, (of from one another, if there be two or more Glasses used) and all this according to the Rules Art. The same fort of Caution should be used to in Mediums which assist the Hearing, such Speaking-Trumpets, Hearing-Trumpets, &c.

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than one, let us call in the Affistance of son other Senses to examine it, and this will increate the Evidence of what one Sense dictates. Ex. 9 Our Ear may affist our Eye in judging of the I stance of Bodies, which are both visible and sonorous, as an exploded Canon, or a Cloud charge with Thunder. Our Feeling may affist our Sight judging of the Kind, the Shape, Situation or I stance of Bodies that are near at Hand, as we ther a Garment be Silk or Stuff, &c. So if I be

se, hear, and embrace my Friend, I am sure he is

present.

8. We should also make feveral Trials, at some distant Times, and in different Circumstances, comparing former Experiments with later, and our own Observations with those of other Perfons.

It is by fuch Methods as these that modern Philosophy has been so greatly improved by the use of

sensible Experiments.

SECT. II.

Principles and Rules of Judgment in Matters of Reason and Speculation.

T is by Reason we judge both in Matters of Speculation and Practice; there are peculiar Rules which relate to Things practical, whether they be Matters of Religion, Morality, or Prudence, yet many Things in this Section may be applied to practical Enquiries and Matters of Faith, tho the thiefly relates to Knowledge or Speculations of Reason.

1. Whatsoever clear Ideas we can join together without Inconsistency, are to be counted Possible, because Almighty Power can make whatsoever

we can conceive.

2. From the mere Possibility of a Thing we canot infer its actual Existence; nor from the Non-

wistence of it can we infer its Impossibility.

Note, The Idea of God seems to claim an Exmption from this general Rule; for if he be posble, he certainly exists, because the very Idea cludes Eternity, and he cannot begin to be: If exist not, he is impossible, for the very same leason.

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3. Whatsoever is evidently contain'd in the Idea of any thing, may be affirmed of that thing with Certainty. Reason is contained in the Idea of a Man; and Existence is contained in the Idea of God; and therefore we may affirm God exists, and Man is reasonable.

4. It is impossible that the same thing should be, and not be at the same Time, and in the same Respect. Thence it follows, that two contradictory Ideas cannot be joined in the same Part of the same Subject, at the same Time, and in the same Respects: Or, that two contradictory Propositions can be both true.

never be both true.

5. The more we converse with any Subject in its various Properties, the better Knowledge of it we are likely to attain; and by frequent and repeated Enquiries and Experiments, Reasonings and Conversations about it, we confirm our true Judgments of that Thing, and correct our former Mistakes.

6. Yet after our utmost Enquiries, we can never be affured by Reason, that we know all the Powers

and Properties of any finite Being.

7. If finite Beings are not adequately known by us, much less are Things infinite: For it is of the Nature of a finite Mind not to be able to compre-

hend what is infinite.

8. We may judge and argue very justly and certainly concerning *Infinites*, in some Parts of them, or so far as our Ideas reach, tho' the *Infinity*; of them hath something incomprehensible in it. And this is built on the general Rule following, (viz.)

ought not to be denied, tho' there are other thing belonging to the same Subject which cannot be comprehended. I may affirm many Things with Certainty

Certainty concerning human Souls, their Union with Bodies, concerning the Divisibility of Matter, and the Attributes of God, tho' many other Things relating to them are all Darkness to us.

nents, or equal Arguments for and against it, we must remain in perfect Suspence about it, till con-

vincing Evidence appear on one Side.

not constrain us to determine, we should not immediately yield up our Assent to mere probable Arguments, without a due Reserve, if we have any reasonable Hope of attaining greater Light and Evidence on one Side or the other: For when the Balance of the Judgment once resigns its Equilibrium or Neutrality to a mere probable Argument, it is too ready to settle itself on that Side, so that the Mind will not easily change that Judgment, tho' bright and strong Evidence appear afterwards on the other Side.

12. Of two Opinions if one has unanswerable Dissibilities attending it, we must not reject it immediately, till we examine whether the contrary

Opinion has not Difficulties as unanswerable.

13. If each Opinion has Objections against it which we cannot answer, or reconcile, we should rather embrace that which has the least Difficulties in it, and which has the best Arguments to support it: And let our Assent bear Proportion to

the superior Evidence.

14. If any Doctrine hath very strong and sufficient Light and Evidence to command our Assent, we should not reject it because there is an Objection or two against it which we are not able to answer; for upon this Foot a common Christian would be baffled out of every Article of his Faith, and must renounce even the Distates of his Rea-

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fon and bis Senses; and the most learned Man perhaps would hold but very sew of them sast; for some Objections which attend the sacred Doctrine of the Eternity and the Omnipresence of God, and the philosophical Doctrines of Light, Atoms, Space, Motion, &c. are hardly solvable to this

Day.

in Matters of Speculation or Practice, and neither of them has certain and convincing Evidence, it is generally fafest to take the middle Way. Moderation is more likely to come near the Truth than doubtful Extremes. This is an excellent Rule to judge of the Characters and Value of the greatest Part of Persons and Things; for Nature seldom deals in Superlatives. It is a good Rule also by which to form our Judgment in many speculative Controversies; a reconciling Medium in such Cases does often best secure Truth as well as Peace.

a very strong and cogent Evidence, and do not plainly appear inconsistent, we may believe both of them, tho' we cannot at present see the Way to reconcile them. Reason, as well as our own Consciousness, assures us that the Will of Man is free, and that Multitudes of buman Actions are in that Respect contingent; and yet Reason and Scripture assure us that God foreknows them all, and this implies a certain Futurity. Now tho' learned Men have not to this Day hit on any so clear and happy Method as is desired to reconcile these Propositions, yet since we do not see a plain Inconsistency in them, we justly believe them both, because their Evidence is great.

17. Let us not therefore too suddenly determine in difficult Matters that two Things are utterly inconsistent: For there are many Propositions which

may appear inconsistent at first, and yet afterwards we find their Consistency, and the Way of reconciling them may be made plain and easy: As also, there are other Propositions which may appear consistent at first, but after due Examination we find their Inconsistency.

18. For the same Reason we should not call those Difficulties utterly insolvable, or those Objections unanswerable, which we are not presently able to answer: Time and Diligence may give far-

ther Light.

19. In short, if we will secure ourselves from Error, we should not be too frequent or hasty in afferting the certain Confistency or Inconsistency, the absolute Universality, Necessity, or Impossibility of Things, where there is not the brightest Evidence. He is but a young and raw Philosopher, who, when he fees two particular Ideas evidently agree, immediately afferts them to agree univerfally, to agree necessarily, and that it is impossible it should be otherwise: Or when he sees evidently that two particular Ideas happen to disagree, he presently afferts their constant and natural Inconfistency, their utter Impossibility of Agreement, and calls every thing contrary to his Opinion Absurdity and Nonsense. A true Philosopher will affirm or deny with much Caution or Modesty, unless he has thoroughly examin'd and found the Evidence of every Part of his Affertion exceeding plain.

rance of any important Point of Doctrine upon one fingle Argument, if there are more to be obtain'd. We should not slight and reject all other Arguments which support the same Doctrine, lest if our favourite Argument should be resuted, and fail us, we should be tempted to abandon that important Principle of Truth. I think this was a very

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culpable Practice in Descartes, and some of his Followers, who when he had sound out the Argument for the Existence of God, derived from the Idea of a most perfect and self-existent Being, he seemed to despise and abandon all other Arguments against Atheism.

for any Opinion refuted, we should not immediately give up the Opinion itself; for perhaps it may be a Truth still, and we may find it to be justly supported by other Arguments, which we might once think weaker, or perhaps by new

Arguments which we knew not before.

vidence of a Proposition, where both the Kind and the Force of the Arguments or Proofs are as great as the Nature of the Thing admits, and as the Necessity or Exigence of the Case requires. So if we have a credible and certain Testimony that Christ rose from the Dead, it is enough; we are not to expect mathematical or ocular Demonstration for it, at least in our Day.

23. Tho' we should seek what Proofs may be attain'd of any Proposition, and we should receive any Number of Arguments which are just and evident for the Confirmation of the same Truth, yet we must not judge of the Truth of any Proposition by the Number of Arguments which are brought to support it, but by the Strength and Weight of them: A Building will stand firmer and longer on four large Pillars of Marble, than on

ten of Sand, or Earth, or Timber.

24. Yet where certain Evidence is not to be found or expected, a confiderable Number of probable Arguments carry great Weight with them even in Matters of Speculation. That is a probable Hypothesis in Philosophy or in Theology, which goes

goes farthest toward the Solution of many difficult Questions arising on any Subject.

SECT. III.

Principles and Rules of Judgment in Matters of Morality and Religion.

HERE it may be proper in the first Place to mention a few Definitions of Words or Terms.

By Matters of Morality and Religion, I mean those things which relate to our Duty to God,

our Selves, or our Fellow-Creatures.

Moral Good, or Virtue, or Holiness, in an Action or Temper conformable to the Rule of our Duty. Moral Evil, or Vice, or Sin, is an Action or Temper unconformable to the Rule of our Duty, or a Neglect to fulfil it.

Note, The Words Vice or Virtue, chiefly imply the Relation of our Actions to Men and this World: Sin and Holiness rather imply their Re-

lation to God and the other World.

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Natural Good is that which gives us Pleasure or Satisfaction. Natural Evil is that which gives us Pain or Grief.

Happiness consists in the Attainment of the highest and most lasting natural Good. Misery consists in suffering the highest and most lasting natural Evil; that is, in short, Heaven or Hell.

Tho' this be a just Account of perfect Happiness and perfect Misery, yet wheresoever Pain overbalances Pleasure, there is a Degree of Misery; and wheresoever Pleasure overbalances Pain, there is a Degree of Happiness.

I proceed now to lay down fome Principles and Rules of Judgment in Matters of Morality and Re-

ligion.

1. The Will of our Maker, whether discovered by Reason or Revelation, carries the highest Authority with it, and is therefore the bigbest Rule of Duty to intelligent Creatures; a Conformity or Non-conformity to it determines their Actions to be morally good or evil.

2. Whatsoever is really an immediate Duty toward ourselves, or toward our Fellow-Creatures, is more remotely a Duty to God; and therefore in the Practice of it we should have an Eye to the Will of God as our Rule, and to his Glory as our

End.

3. Our wise and gracious Creator has closely united our Duty and our Happiness together; and has connected Sin or Vice, and Punishment; that is, he has ordained that the highest natural Good and Evil should have a close Connection with moral Good and Evil, and that both in the Nature of Things, and by his own positive Appointment.

4. Conscience should seek all due Information in order to determine what is Duty, and what is Sin, because Happiness and Misery depend

upon it.

temporal Good, and our Aversion to present temporal Evil, must be wisely overbalanced by the Confideration of future and eternal Good or Evil, that is, Happiness or Misery. And for this Reason we should not omit a Duty or commit a Sin, to gain any temporal Good, or to avoid any temporal Evil.

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6. Tho' our natural Reason in a State of Innocence might be sufficient to find out those Duties which were necessary for an innocent Creature, in order to abide in the Favour of his Maker, yet in a fallen State our natural Reason is by no means sufficient to find out all that is necessary to restore a sinful Creature to the divine Favour.

7. Therefore God hath condescended in various Ages of Mankind to reveal to sinful Men what he requires of them in order to their Restoration, and has appointed in his Word some peculiar Matters of Faith and Practice, in order to their Salvation. This is call'd reveal'd Religion, as the Things knowable concerning God, and our Duty by the Light of Nature are called natural Religion.

8. There are also many Parts of Morality, and natural Religion, or many natural Duties relating to God, to our selves, and to our Neighbours, which would be exceeding difficult and tedious for the Bulk of Mankind to find out and determine by natural Reason; therefore it has pleased God in this facred Book of Divine Revelation to express the most necessary Duties of this kind in a very plain and easy manner, and made them intelligible to Souls of the lowest Capacity; or they may be very easily derived thence by the Use of Reason.

9. As there are some Duties much more necessary, and more important than others are, so every Duty requires our Application to understand and practise it in Proportion to its Necessity and Importance.

10. Where two Duties seem to stand in Opposition to each other, and we cannot practise both, the less must give Way to the greater, and the Omission of the less is not sinful. So ceremo-

nial Laws give Way to moral: God will have

Mercy and not Sacrifice.

judge of the different Degrees of their Necessity and Importance by Reason, according to their greater or more apparent Tendency to the Honour of God and the good of Men: But in Matters of reveal'd Religion, it is only divine Revelation can certainly inform us what is most necessary and most important; yet we may be assisted also in that Search by the Exercises of Reason.

ple about the Duty or Lawfulness of them, we should choose always the safest Side, and abstain as far as we can from the Practice of Things

whose Lawfulness we suspect.

Life, or in Religion, are generally the most evident, both in the Nature of Things and in the Word of God; and where Points of Faith or Practice are exceeding difficult to find out, they cannot be exceeding important. This Proposition may be proved by the Goodness and Faithfulness of God, as well as by Experience and Observation.

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Forms of Religion, as well as human Affairs, there is frequently a present Necessity of speedy Action one Way or another: In such a Case, having surveyed Arguments on both Sides, as far as our Time and Circumstances admit, we must guide our Practice by those Reasons which appear most probable, and seem at that Time to overbalance the rest; yet always reserving room to admit sarther Light and Evidence, when such Occurrences return again. It is a Preponderation of circumstantial Arguments

Arguments that must determine our Actions in a

thousand Occurrences.

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15. We may also determine upon probable Arguments where the matter is of small Consequence and would not answer the Trouble of seeking after Certainty. Life and Time are more precious than to have a large Share of them laid out in scrupulous Enquiries, whether smoaking Tobacco,

or wearing a Periwig be lawful or no.

16. In Affairs of greater Importance, and which may have a long and lafting, and extensive Influence on our future Conduct or Happiness, we should not take up with Probabilities, if Certainmay be attained. Where there is any Doubt on the Mind, in fuch Cases we should call in the Affiltance of all manner of Circumstances, Reaions, Motives, Consequences on all Sides: We must wait longer and with earnest Request seek human and divine Advice before we fully determine our Judgment and our Practice, according to the old Roman Sentence, Quod statuendum est semel, deliberandum est diu. We should be long in confidering what we must determine once for all.

SECT. IV.

Principles and Rules of Judgment in Matters of human Prudence.

THE great Design of Prudence, as distinct from Morality and Religion, is to determine and manage every Affair with Decency, and to the best Advantage.

That is decent, which is agreeable to our State, Condition, or Circumstances, whether it be in

Behaviour, Discourse, or Action.

That

That is advantageous which attains the most and best Purposes, and avoids the most and greatest Inconveniences.

As there is infinite Variety in the Circumstances of Persons, Things, Actions, Times and Places, so we must be furnish'd with such general Rules as are accommodable to all this Variety by a wise Judgment and Discretion: For what is an Act of consummate Prudence in some Times, Places and Circumstances, would be consummate Folly in others. Now these Rules may be rang'd in the following manner.

1. Our Regard to Persons or Things should be govern'd by the Degrees of Concernment we have with them, the Relation we have to them, or the Expectation we have from them. These should be the Measures by which we should proportion our Diligence and Application in any thing that relates to them.

2. We should always consider whether the Thing we pursue be attainable; whether it be worthy our Pursuit; whether it be worthy the Degree of Pursuit; whether it be worthy of the Means used in order to attain it. This Rule is necessary both in Matters of Knowledge, and Matters of Practice.

3. When the Advantages and Disadvantages, Conveniencies and Inconveniencies of any Action are balanced together, we must finally determine on that Side which has the superior Weight; and the sooner in things which are necessarily and speedily to be done or determin'd.

4. If Advantages and Disadvantages in their own Nature are equal, then those which are most certain or likely as to the Event should turn the Scale of our Judgment, and determine our Practice.

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5. Where the Improbabilities of Success or Advantage are greater than the Probabilities, it is not Prudence to act or venture. It is proper to enquire whether this be not the Case in almost all Lotteries; for they that hold Stakes will certainly secure Part to themselves; and only the Remainder being divided into Prizes must render the Improbability of Gain to each Adventurer greater than the Probability.

6. We should not despise or neglect any real Advantage, and abandon the Pursuit of it, tho we cannot attain all the Advantages that we desire. This would be to act like Children, who are fond of something which strikes their Fancy most, and sullen and regardless of every thing else,

if they are not humour'd in that Fancy.

7. Tho' a general Knowledge of Things be useful in Science and in human Life, yet we should content our selves with a more superficial Knowledge of those things which have the least Rela-

tion to our chief End and Defign.

8. This Rule holds good also in Matters of Business and Practice, as well as in Matters of Knowledge; and therefore we should not grasp at every
thing, lest in the end we attain nothing. Persons
that either by an Inconstancy of Temper, or by
a vain Ambition, will pursue every fort of Art
and Science, Study and Business, seldom grow excellent in any one of them: And Projectors who
form twenty Schemes seldom use sufficient Application to finish one of them, or make it turn
to good Account.

9. Take heed of delaying and trifling amongst the Means instead of reaching at the End. Take heed of wasting a Life in mere speculative Studies, which is called to Astion and Employment: Dwell not too long in philosophical, mathematical or

gramma-

grammatical Parts of Learning, when your chief Design is Law, Physick, or Divinity. Don't spend the Day in gathering Flowers by the Way Side, lest Night come upon you before you arrive at your Journey's End, and then you will not reach it.

and good Men resemble our own Case and Circumstances, we may borrow a great deal of Instruction toward our prudent Conduct from their Example, as well as in all Cases we may learn much

from their Conversation and Advice.

mere Speculation in Matters of buman Prudence can never be a perfect Director without Experience and Observation. We may be content therefore in our younger Years to commit some unavoidable Mistakes in Point of Prudence, and we shall see Mistakes enough in the Conduct of others, both which ought to be treasured up amongst our useful Observations, in order to teach us better Judgment for Time to come. Sometimes the Mistakes, Imprudences and Follies, which our selves or others have been guilty of, give us brighter and more effectual Lessons of Prudence, than the wifest Councils, and the fairest Examples could ever have done.

SECT. V.

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Principles and Rules of Judgment in Matters of buman Testimony.

THE Evidence of buman Testimony is not so proper to lead us into the Knowledge of the Essence and inward Nature of Things, as to acquaint us with the Existence of Things, and to inform

form us of Matters of Fast both past and prent. And tho' there be a great deal of Fallibility the Testimony of Men, yet there are some hings we may be almost as certain of, as that sun shines, or that five Twenties make a Hund. Who is there at London that knows any ing of the World, but believes there is such a ty as Paris in France; that the Pope dwells at ome; that Julius Cæsar was an Emperor, or that there had a great Hand in the Reformation? If we observe the following Rules, we may are at such a Certainty in many Things of human estimony, as that it is morally impossible we

estimony, as that it is morally impossible we old be deceived, i. e. we may obtain a moral rainty.

I. Let us consider whether the Thing reported in itself possible; if not, it can never be creditively, whosoever relates it.

2. Consider farther whether it be probable, when there are any concurring Circumstances to prove beside the mere Testimony of the Person that ates it. I consess if these last Conditions are using, the thing may be true, but then it ght to have the stronger Testimony to super it.

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3. Consider whether the Person who relates it capable of knowing the Truth: Whether he be kilful Judge in such Matters, if it be a Business Art, or a nice Appearance in Nature, or some ious Experiment in Philosophy. But if it be are Occurrence in Life, a plain, sensible Matof Fact, it is enough to enquire whether he o relates it were an Eye or Ear-Witness, or ether he himself had it only by Hearsay, or can the it up to the Original.

4. Confider whether the Narrator be boneft an faithful, as well as skilful: Whether he hath n Biass upon his Mind, no peculiar Gain or Pro by believing or reporting it, no Interest or Prin ciple which might warp his own Belief afide from Truth, or which might tempt him to prevarican to speak falsly, or to give a Representation a li tle different from the naked Truth of Things. short, whether there be no Occasion of Suspicion

concerning his Report. 5. Consider whether several Persons agree togs ther in the Report of this Matter; and if fo, the whether these Persons who join'd together in the Testimony might not be suppos'd to combine to gether in a Falshood. Whether they are Person of sufficient Skill, Probity and Credit. It might also enquired, whether they are of different N tions, Sects, Parties, Opinions, or Interests. For the more divided they are in all these, the mo likely is their Report to be true, if they agreet gether in their Account of the same Thing; an especially if they persist in it without wave ing.

6. Consider farther, whether the Report we capable of being easily refuted at first if it had n been true; if so, this confirms the Testimony.

7. Enquire yet again, whether there hath bee a constant, uniform Tradition and Belief of this Ma ter from the very first Age or Time when the Thing was transacted, without any reasonab Doubts or Contradictions. Or,

8. If any Part of it hath been doubted by at considerable Persons, whether it has been search out and afterwards confirmed, by having all t Scruples and Doubts removed. In either of the Cases the Testimony becomes more firm at mod credible.

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9. Enquire on the other Hand, whether there are any considerable Objections remaining against the Belief of that Proposition fo attested. Whether there be any thing very improbable in the thing it felf. Whether any concurrent Circumstances feem w oppose it. Whether any Person or Persons give a positive and plain Testimony against it. they are equally skilful, and equally faithful as those who affert it. Whether they be as many or more in Number, and whether they might have any fecret Biass or Influence on them to contradict

10. Sometimes the entire Silence of a Thing may have fomething of Weight toward the Decision of a doubtful Point of History, or a Matter of human Faith, (viz.) where the Fact is pretended be publick, if the Persons who are silent about twere skilful to observe, and could not but know such an Occurrence; if they were engaged by Principle or by Interest to have declared it; if they had fair Opportunity to speak of it: And these Things may tend to make a Matter suspitious, if it be not very well attested by positive Proof.

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11. Remember that in some Reports there are nore Marks of Falshood than of Truth, and in thers there are more Marks of Truth than of Falsewd. By a Comparison of all these things togeher, and putting every Argument on one Side nd the other into the Balance, we must form as erates; and give a strong or a feeble Assent or dissent, or with-hold our Judgment entirely, act ording to greater on laster Entirely. ood a Judgment as we can which Side preponording to greater or leffer Evidence, according to nore plain or dubious Marks of Truth or Falseood.

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12. Observe that in Matters of human Testimony, there is oftentimes a great Mixture of Truth with Falshood in the Report itself: Some Parts of the Story may be perfectly true, and some utterly false; and some may have such a blended Confusion of Circumstances which are a little warpt aside from the Truth, and misrepresented, that there is need of good Skill and Accuracy to form a Judgment concerning them, and determine which Part is true, and which is false. The whole Report is not to be believed, because some Parts are indubitably true, nor the whole to be rejected, because some Parts are as evident Falshoods.

We may draw two remarkable Observations

from this Section.

Observ. I. How certain is the Truth of the Christian Religion, and particularly of the Resurrection of Christ, which is a Matter of Fact on which Christianity is built! We have almost all the concurrent Evidences that can be derived from buman Testimony joining to confirm this glorious The Fact is not impossible; concurrent Circumstances cast a favourable Aspect on it; it was foretold by one who wrought Miracles, and therefore not unlikely, nor unexpected: The Apostles and first Disciples were Eye and Ear-Witnesses, for they conversed with their risen Lord; they were the most plain, honest Men in themfelves; the Temptations of worldly Interests did rather discourage their Belief and Report of it They all agree in this Matter, tho' they were Men of different Characters; Pharisees and Fisher men, and Publicans, Men of Judea and Galilee, and perhaps some Heathens, who were early converted: The Thing might easily have been difproved if it were false; it hath been conveyed by constant

constant Tradition and Writing down to our Times; those who at first doubted were afterwards convinced by certain Proofs; nor have any pretended to give any Proof of the contrary, but merely denied the Fact with Impudence in Opposition to all these Evidences.

Observ. II. How weak is the Faith which is due to a Multitude of things in antient human History! For tho' many of these Criteria, or Marks of Credibility are found plainly in the more general and publick Fasts, yet as to a Multitude of particular Fasts and Circumstances, how deficient are they in such Evidence as should demand our Assent! Perhaps there is nothing that ever was done in all past Ages, and which was not a publick Fast, so well attested as the Resurrection of Christ.

SECT. VI.

Principles and Rules of Judgment in Matters of divine Testimony.

A Shuman Testimony acquaints us with Matters of Fast, both past and present, which lye beyond the Reach of our own personal Notice; so divine Testimony is suited to inform us both of the Nature of Things, as well as Matters of Fast, and of Things suture, as well as present or past.

Whatsoever is dictated to us by God himself, or by Men who are divinely inspired, must be believed with full Assurance. Reason demands us to believe whatsoever divine Revelation dictates: For God is perfectly wise, and cannot be deceived; he is faithful and good, and will not deceive his Creatures: And when Reason has found out the certain Marks or Credentials of divine Testimony to

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belong to any Proposition, there remains then no farther Enquiry to be made, but only to find ou the true Sense and Meaning of that which God has revealed, for Reason itself demands the Belie of it.

Now divine Testimony or Revelation requires these

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following Credentials.

1. That the Propositions or Doctrines reveal ed be not inconsistent with Reason; for intelligen Creatures can never be bound to believe real In confistencies. Therefore we are sure the Popil Doctrine of Transubstantiation is not a Matter of divine Revelation, because it is contrary to all ou Senses and our Reason, even in their proper Ex ercifes.

God can dictate nothing but what is worthy of himself, and agreeable to his own Nature and divine Perfections. Now many of these Perfections are discoverable by the Light of Reason and whatfoever is inconfiftent with these Per-

fections, cannot be a divine Revelation.

But let it be noted that in Matters of Practice toward our Fellow-Creatures, God may command us to act in a Manner contrary to what Reafor would direct antecedent to that Command. So Abraham was commanded to offer up his Son Sacrifice: The Israelites were ordered to borrow of the Egyptians without paying them, and to plunder and flay the Inhabitants of Canaan: Be cause God has a sovereign Right to all Things and can with Equity disposses his Creatures of Life, and every Thing which he has given them and especially such finful Creatures as Mankind and he can appoint whom he pleases to be the la struments of this just Dispossession or Deprivation. So that these divine Commands are no Section. really inconfistent with right Reason; for whatsoever

is so cannot be believed where that Inconsistency

appears.

2. Upon the same Account the whole Dostrine of Revelation must be confistent with itself; every Part of it must be confistent with each other: And tho' in Points of Practice latter Revelation may repeal or cancel former divine Laws, yet in Matters of Belief no latter Revelation can be inconsistent with what has been heretofore revealed.

3. Divine Revelation must be confirm'd by some divine and supernatural Appearances, some extraordinary Signs or Tokens, Visions, Voices, or Miracles wrought, or Prophecies fulfill'd. There must be some Demonstrations of the Presence and Power of God, superior to all the Powers of Nature, or the fettled Connection which God as Creator has establish'd among his Creatures in

this visible World.

4. If there are any fuch extraordinary and wonderful Appearances and Operations brought to contest with, or to oppose divine Revelation, there must and always will be such a Superiority on the Side of that Revelation which is truly divine, as to manifest that God is there. This was the Case when the Egyptian Sorcerers contended with Moses. But the Wonders which Moses wrought did so far transcend the Power of the Magicians, as made them confess, It was the Finger of God.

5. These divine Appearances or Attestations to Revelation must be either known to ourselves, by our own personal Observation of them, or they must be sufficiently attested by others, according to the Principles and Rules by which Matters of buman Faith are to be judged in the foregoing

Section.

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Some of those who liv'd in the Nations and Ages where Miracles were wrought, were Eye and Ear-Witnesses of the Truth and Divinity of the Revelation; but we who live in these distant Ages, must have them deriv'd down to us by just and in contestable History and Tradition. We also even in these distant Times may see the Accomplish ments of some antient Predictions, and thereby ob tain that Advantage toward the Confirmation of our Faith in divine Revelation beyond what those Persons enjoy'd who liv'd when the Prediction

were pronounc'd.

6. There is another very confiderable Confir mation of divine Testimony; and that is, when the Doctrines themselves either on the Publication of the Belief of them produce supernatural Effects Such were the miraculous Powers which were com municated to Believers in the first Ages of Chri stianity, the Conversion of Jews or Gentiles, th amazing Success of the Gospel of Christ withou human Aid, and in Opposition to a thousand Im pediments, its Power in changing the Hearts and Lives of ignorant and vicious Heathens, and wicked and profane Creatures in all Nations and filling them with a Spirit of Virtue, Pier Wherefoever Persons have foun and Goodness. this Effect in their own Hearts, wrought by Belief of the Gospel of Christ, they have a Wit ness in themselves of the Truth of it, and abun dant Reason to believe it divine.

Of the Difference between Reason and Revelo tion, and in what Sense the latter is superior, se more in Chap. II. Sett. 9. and Chap. IV. Dirett. 6. f

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SECT. VII.

principles and Rules of judging, concerning Things past, present, and to come, by the mere Use of Reason.

Though we attain the greatest Assurance of Things past and future by divine Faith, and learn many Matters of Fact, both past and present, by human Faith, yet Reason also may in a good Degree assist us to judge of Matters of Fact both past, present, and to come, by the following Principles.

of which we ourselves are a Part, which we call the World; and in this World there is a Course of Nature, or a settled Order of Causes, Effects, Antecedents, Concomitants, Consequents, &c. from which the Author of Nature doth not vary but upon

very important Occasions.

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2. Where Antecedents, Concomitants and Confequents, Causes and Effects, Signs and Things signified, Subjects and Adjuncts are necessarily connected with each other, we may infer the Causes from the Effects, and Effects from Causes, the Antecedents from the Consequents, as well as Consequents from Antecedents, &c. and thereby be pretty certain of many Things both past, present, and to come. It is by this Principle that Astronomers can tell what Day and Hour the Sun and Moon were eclipsed five bundred Years ago, and predict all future Eclipses as long as the World shall stand. They can tell precisely at what Minute the Sun rises or sets this Day at Pequin in China, or what Altitude the Dog-star had at Midnight or Midnoon in Rome, on the Day when Julius Cæsar was slain. Gardiners

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Gardiners upon the same Principle can foretel the Months when every Plant will be in Bloom, and the Plowman knows the Weeks of Harvest: We are fure if there be a Chicken, there was an Egg: If there be a Rainbow, we are certain it rains not far off: If we behold a Tree growing on the Earth, we know it has naturally a Root under Ground.

3. Where there is fuch a necessary Connection between Causes and Effects, Antecedents and Conse. quents, Signs and Things signified, we know also that like Causes will have like Effects, and proportionable Causes will have proportionable Effects, contrary Causes will have contrary Effects; and ob. ferving Men may form many Judgments by the Rules of Similitude and Proportion, where the Causes, Effects, &c. are not entirely the same.

4. Where there is but a probable and uncertain Connection between Antecedents, Concomitants and Consequents, we can give but a Conjecture, or a probable Determination. If the Clouds gather, or the Weather-glass sinks, we suppose it will rain: If a Man spit Blood frequently with coughing, we suppose his Lungs are burt: If very dangerous

Symptoms appear, we expect his Death.

5. Where Causes operate freely with a Liberty of Indifference to this or the contrary, there we cannot certainly know what the Effects will be: For it feems to be contingent, and the certain Knowledge of it belongs only to God. This is the Cafe

in the greatest Part of human Actions.

6. Yet wife Men by a just Observation of human Nature will give very probable Conjectures in this Matter also concerning Things past, or Things future, because human Nature in all Ages and Nations has fuch a Conformity to itself. By a Knowledge of the Tempers of Men and their present Circumstances, we may be able to give a happy

happy Guess what their Conduct will be, and what will be the Event, by an Observation of the like Cases in former Times. This made the Emperor Marcus Antoninus to say, "By looking back into "History, and considering the Fate and Revolutions of Governments, you will be able to form a Guess, and almost prophesy upon the future. For Things past, present, and to come, are strangely uniform, and of a Colour; and are commonly cast in the fame Mould. So that upon the Matter, forty "Years of Suman Life may serve for a Sample of ten thousand." Collier's Antoninus, Book VII.

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7. There are also some other Principles of judging concerning the past Actions of Men in former Ages, befides Books, Histories, and Traditions, which are the Mediums of conveying human Testimony; as we may infer the Skill and Magnificence of the Antients by some Fragments of their Statues, and Ruins of their Buildings. We know what Roman Legions came into Great Britain by Numbers of Bricks dug out of the Earth in some Parts of the Island, with the Marks of some particular Legion upon them, which must have been employ'd there in Brick-making. We rectify some Mistakes in History by Statues, Coins, old Altars, Utenfils of War, &c. We confirm or disprove some pretended Traditions and historical Writings, by Medals, Images, Pietures, Urns, &c.

Thus I have gone thro' all those particular Objects of our Judgment which I first propos'd, and have laid down Principles and Rules by which we may safely conduct ourselves therein. There is a Variety of other Objects concerning which we are occasionally call'd to pass a Judgment, (viz.) The Characters of Persons, the Value and Worth

of Things, the Sense and Meaning of particular Writers, Matters of Wit, Oratory, Poefy, Matters of Equity in judicial Courts, Matters of Traffick and Commerce betwixt Man and Man, which would be endless to enumerate. But if the general and special Rules of Judgment which have been mentioned in these two last Chapters are treasur'd up in the Mind, and wrought into the very Temper of our Souls in our younger Years, they will lay a Foun. dation for just and regular Judgment concernings thousand special Occurrences in the religious, civil and learned Life.

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LOGICK.

Of Reasoning and Syllogism.

As the first Work of the Mind is Perception, whereby our Ideas are fram'd, and the second is Judgment, which joins or disjoins our Ideas, and forms a Proposition, so the third Operation of the Mind is Reasoning, which joins several Propositions together, and makes a syllogism, that is, an Argument whereby we are wont to infer something that is less known, from Truths which are more evident.

In treating of this Subject, let us consider more

1. The Nature of a Syllogism, and the Parts of which it is compos'd.

2. The several kinds of Syllogisms, with partiular Rules relating to them. 3. The Doctrine of Sophisms, or false Reasoning, together with the Means of avoiding them, and the Manner of solving or answering them.

4. Some general Rules to direct our Reasoning.

CHAP. I.

Of the Nature of a Syllogism, and the Parts of which it is compos'd.

IF the mere Perception and Comparison of two Ideas would always shew us whether they agree or difagree; then all rational Propositions would be Matters of Intelligence, or first Principles, and there would be no Use of Reasoning, or drawing any Consequences. It is the Narrowness of the human Mind which introduces the Necessity of Reasoning. When we are unable to judge of the Truth or Falshood of a Proposition in an immediate Manner, by the mere Contemplation of its Subject and Predicate, we are then constrain'd to use a Medium, and to compare each of them with fome third Idea, that by seeing how far they agree or disagree with it, we may be able to judge how for they agree or disagree among themselves: As, if there are two Lines A and B, and I know not whether they are equal or no, I take a third Line C, or an Inch, and apply it to each of them; if it agree with them both, then I infer that A and B are equal; but if it agree with one and not with the other, then I conclude A and B are unequal: If it agree with neither of them, there can be no Comparison.

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So if the Question be whether God must be worshipped, we seek a third Idea, suppose the Idea of a Creator, and say,

Our Creator must be worshipped.

God is our Creator.

Therefore God must be worshipped.

The Comparison of this third Idea, with the two distinct Parts of the Question, usually requires two Propositions, which are call'd the Premisses: The third Proposition which is drawn from them is the Conclusion, wherein the Question itself is answered, and the Subject and Predicate joined either in the Negative or the Assirtative.

The Foundation of all Affirmative Conclusions is laid in this general Truth, that so far as two propos'd Ideas agree to any third Idea, they agree also among themselves. The Character of Creator agrees to God, and Worship agrees to a Creator,

therefore Worship agrees to God.

The Foundation of all negative Conclusions is this, that where one of the two proposed Ideas agrees with the third Idea, and the other disagrees with it, they must needs disagree so far also with one another; as, if no Sinners are happy, and if Angels are happy, then Angels are not Sinners.

Thus it appears what is the strict and just Notion of a Syllogism: It is a Sentence or Argument made up of three Propositions so disposed, as that the last is necessarily infer'd from those which go before, as in the Instances which have been just

mentioned.

In the Constitution of a Syllogism two Things may be considered, (viz.) the Matter and the Form of it.

The Matter of which a Syllogism is made up, is three Propositions; and these three Propositions are made up of three Ideas or Terms variously join-

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ed. The three Terms are call'd the remote Matter of a Syllogism; and the three Propositions, the proxime or immediate Matter of it.

The three Terms are nam'd the Major, the

Minor, and the Middle.

The Predicate of the Conclusion is call'd the major Term, because it is generally of larger Extension than the minor Term, or the Subject. The major and minor Terms are call'd the Extremes.

The middle Term is the third Idea invented and dispos'd in two Propositions in such a manner as to shew the Connection between the major and minor Term in the Conclusion; for which Reason the middle Term itself is sometimes called the Argument.

That Proposition which contains the Predicate of the Conclusion, connected with the middle Term, is usually call'd the major Proposition, whereas the minor Proposition connects the middle Term with the Subject of the Conclusion, and is some-

times call'd the Assumption.

Note, This exact Distinction of the several Parts of a Syllogism, and of the major and minor Terms connected with the middle Term, in the major and minor Propositions, does chiefly belong to simple or categorical Syllogisms, of which we shall speak in the next Chapter, tho' all Syllogisms whatsoever have something analogical to it.

Note farther, that the major Proposition is generally plac'd first, and the minor second, and the Conclusion in the last Place, where the Syllogism

is regularly compos'd and represented.

The Form of a Syllogism is the framing and disposing of the Premisses according to Art, or just Principles of Reasoning, and the regular Inference of the Conclusion from them.

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The Act of Reasoning or inferring one thing from another, is generally exprest and known by the Particle Therefore, when the Argument is formed according to the Rules of Art; tho' in the formed according to the Rules of Art; tho' in the formed according to the Rules of Art; tho' in the formed according to the Rules of Art; tho' in the formed according to the Rules of Art; tho' in the formed according to the Rules of Art; tho' in the formed as well as the illative Particles Then and Therefore: And wheresoever any of these Words are field, there is a perfect Syllogism express or imply'd, tho' perhaps the three Propositions do not oppear, or are not placed in regular Form.

CHAP. II.

of the various Kinds of Syllogisms, with particular Rules relating to them.

Yllogisms are divided into various Kinds, either according to the Question which is roved by them, according to the Nature and imposition of them, or according to the middle arm, which is used to prove the Question.

SECT. I.

universal and particular Syllogisms, both negative and affirmative.

A Ccording to the Question which is to be proved, so Syllogisms are divided into unifulal Affirmative, universal Negative, particular structure, and particular Negative. This is often led a Division of Syllogisms drawn from the melusion; for so many Sorts of Conclusions there

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may be which are marked with the Letters A E, I, O.

In an universal affirmative Syllogism, one Idea proved univerfally to agree with another, and ma be universally affirmed of it, as every Sin desery Death, every unlawful Wish is a Sin; therefor every unlawful Wish deserves Death.

In an universal negative Syllogism, one Idea proved to difagree with another Idea universally and may be thus denied of it; as, no Injustice a be pleasing to God; all Persecution for the Sake Conscience is Injustice; therefore no Persecution s Conscience Sake can be pleasing to God.

Particular affirmative, and particular negati Syllogisms may be easily understood by what is fall of Universals, and there will be sufficient Example given of all these in the next Section.

The general Principle upon which these univer fal and particular Syllogisms are founded is this what foever is affirmed or denied univerfally of a Idea, may be affirmed or denied of all the par cular Kinds or Beings, which are contained int Extension of that universal Idea. So the Del of Death is affirmed universally of Sin, and and lawful Wish is one particular Kind of Sin, whi is contained in the universal Idea of Sin, therefor the Desert of Death may be affirmed concerni an unlawful Wish. And so of the rest.

Note, In the Doctrine of Syllogisms, a fingula and an indefinite Proposition are ranked amo Universals, as was before observed in the Doctr of Propositions.

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SECT. II.

Of plain, simple Syllogisms, and their Rules.

THE next Division of Syllogisms is into single and compound. This is drawn from the Na-

ture and Composition of them.

Single Syllogisms are made up of three Propositions: Compound Syllogisms contain more than three Propositions, and may be formed into two or more Syllogisms.

Single Syllogisms, for Distinction's Sake, may be divided into * Simple, Complex and Conjunc-

tive.

Those are properly called simple or categorical Syllogisms, which are made up of three plain, single, or categorical Propositions, wherein the middle Term is evidently and regularly joined with one Part of the Question in the major Proposition, and with the other in the minor, whence there follows a plain, single Conclusion; as, every buman Virtue is to be sought with Diligence; Prudence is a human Virtue; therefore Prudence is to be sought diligently.

Note, Tho' the Terms of Propositions may be complex; yet where the Composition of the whole Argument is thus plain, simple and regular, it is properly called a simple Syllogism, since the Complettion does not belong to the syllogistic Form

of it.

^{*}As Ideas and Propositions are divided into fingle and compound, and fingle are subdivided into fimple and complex; so there are the same Divisions and Subdivisions apply'd to Syllogisms.

Simple Syllogisms have several Rules belonging to them, which being observed, will generally secure us from false Inserences: But these Rules being sounded on four general Axioms, it is necessary to mention these Axioms beforehand, for the Use of those who will enter into the speculative Reason of all these Rules.

Axiom 1. Particular Propositions are contained in Universals, and may be infer'd from them; but Universals are not contained in Particulars, nor

can be infer'd from them.

Axiom 2. In all universal Propositions, the Subject is universal: In all particular Propositions, the

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Subject is particular.

Axiom 3. In all affirmative Propositions, the Predicate has no greater Extension than the Subject; for its Extension is restrained by the Subject, and therefore it is always to be esteemed as a particular Idea. It is by mere Accident, if i ever be taken universally, and cannot happen but in such universal or singular Propositions as an reciprocal.

Axiom 4. The Predicate of a negative Proposition is always taken universally, for in its whole Extension it is denied of the Subject. If we say no Stone is vegetable, we deny all forts of Vegeta

tion concerning Stones.

The Rules of *simple*, regular Syllogisms at these.

Rule I. The middle Term must not be taken twing particularly, but once at least universally. For the middle Term be taken for two different Par or Kinds of the same universal Idea, then the Subject of the Conclusion is compared with one

these Parts, and the Predicate with another Part, and this will never shew whether that Subject and Predicate agree or disagree: There will then be four distinct Terms in the Syllogism, and the two Parts of the Question will not be compared with the same third Idea; as if I say, some Men are pious, and some Men are Robbers, I can never infer that some Robbers are pious, for the middle Term Men being taken twice particularly, it is not the same Men who are spoken of in the major and minor Propositions.

Rule II. The Terms in the Conclusion must never be taken more universally than they are in the Premisses. The Reason is derived from the first Axiom, that Generals can never be inferred from Particulars.

Rule III. A negative Conclusion cannot be proved by two affirmative Premisses. For when the two Terms of the Conclusion are united or agree to the middle Term, it does not follow by any Means that they disagree with one another.

Rule IV. If one of the Premisses be negative, the Conclusion must be negative. For if the middle Term be denied of either Part of the Conclusion, it may shew that the Terms of the Conclusion disagree, but it can never shew that they agree.

Rule V. If either of the Premisses be particular, the Conclusion must be particular. This may be proved for the most part from the first Axiom.

These two last Rules are sometimes united in this single Sentence, The Conclusion always follows the weaker Part of the Premisses. Now Negatives

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and Particulars are counted inferior to Affirmatives and Universals.

Rule VI. From two negative Premisses nothing can be concluded. For they separate the middle Term both from the Subject and Predicate of the Conclusion, and when two Ideas disagree to a third, we cannot infer that they either agree or

difagree with each other:

Yet where the Negation is a Part of the middle Term, the two Premisses may look like Negatives according to the Words, but one of them is affirmative in Sense; as, What has no Thought cannot reason; but a Worm has no Thought; therefore a Worm cannot reason. The minor Proposition does really affirm the middle Term concerning the Subject, (viz.) a Worm is what has no Thought, and thus it is properly in this Syllogism an affirmative Proposition.

Rule VII. From two particular Premisses, nothing can be concluded. This Rule depends chiefly on the first Axiom.

A more laborious and accurate Proof of these Rules, and the Derivation of every Part of them in all possible Cases, from the foregoing Axioms, require so much Time, and are of so little Importance to assist the right Use of Reason, that it is needless to insist longer upon them here. See all this done ingeniously in the Logick call'd, the Art of Thinking, Part iii. Chap. iii. &c.

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SECT. III.

Of the Moods and Figures of simple Syllogisms.

[Imple Syllogisms are adorn'd and surrounded in I the common Books of Logick with a Variety of Inventions about Moods and Figures, wherein by the artificial Contexture of the Letters A. E, I, and O, Men have endeavour'd to transform Logick, or the Art of Reasoning, into a fort of Mechanism, and to teach Boys to syllogize, or frame Arguments and refute them, without any real inward Knowledge of the Question. almost in the same Manner as School-boys have been taught perhaps in their trifling Years to compose Latin Verses; i. e. by certain Tables and Squares, with a Variety of Letters in them, wherein by counting every fixth, feventh, or eighth Letter, certain Latin Words should be fram'd in the Form of Hexameters or Pentameters; and this may be done by those who know nothing of Latin or of Verses.

I confess some of these logical Subtilties have much more Use than those versifying Tables, and there is much Ingenuity discover'd in determining the precise Number of Syllogisms that may be form'd in every Figure, and giving the Reasons of them; yet the Light of Nature, a good Judgment, and due Considerations of Things tend more to true Reasoning than all the Trappings of Moods

and Figures.

But lest this Book be charged with too great Desects and Impersections, it may be proper to give short Hints of that which some Logicians have spent so much Time and Paper upon.

All the possible Combinations of three of the Letters A, E, I, O, to make three Propositions amount to fixty four; but fifty four of them are excluded from forming true Syllogisms by the seen Rules in the foregoing Section: The remaining Ten are variously diversified by Figures and Moods into fourteen Syllogisms.

The Figure of a Syllogism is the proper Dispo. Sition of the middle Term with the Parts of the

Question.

A Mood is the regular Determination of Propositions according to their Quantity and Quality, i. e. their universal or particular Affirmation of Negation; which are signified by certain artiscial Words wherein the Consonants are neglected and these four Vowels A, E, I, O, are only regarded.

There are generally counted three Figures.

In the first of them the middle Term is the Subject of the major Proposition, and the Predicate of the minor. This contains four Mood (viz.) Barbara, Celarent, Darii, Ferio. And is the Excellency of this Figure that all Sorts of Questions or Conclusions may be prov'd by it whether A, E, I, or O, i. e. universal or particular, affirmative or negative, as,

Bar- Every wicked Man is truly miserable.

ba- All Tyrants are wicked Men;

ra. Therefore all Tyrants are truly miserable,

Ce- He that's always in Fear is not happy;

la- Covetous Men are always in Fear;

rent. Therefore covetous Men are not happy.

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C.II. S. 3. The right Use of Reason. 291

Da- Whatsoever furthers our Salvation is good for us;

ri- Some Afflictions further our Salvation;

i. Therefore some Afflictions are good for us.

Fe- Nothing that must be repented of is truly defirable;

ri- Some Pleasures must be repented of;

o. Therefore there are some Pleasures which are not truly desirable.

In the fecond Figure the middle Term is the Predicate of both the Premisses; this contains four Moods, (viz.) Cesare, Camestres, Festino, Barroco, and it admits only of negative Conclusions; as,

Ce- No Liar is fit to be believed;

fa- Every good Christian is fit to be believed;

re. Therefore no good Christian is a Liar.

The Reader may eafily form Examples of the rest.

The third Figure requires that the middle Term be the Subject of both the Premisses. It has six Moods, (viz.) Darapti, Felapton, Disamis, Datist., Bocardo, Ferison: And it admits only of particular Conclusions; as,

Da- Whosoever loves God shall be faved;

rap- All the Lovers of God have their Imperfections:

ti. Therefore some who have Impersections shall be faved.

I leave the Reader to form Examples of the rest.

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The Moods of these three Figures are comprized in four Latin Verses.

Barbara, Celarent, Darii, Ferio quoque prima. Cesare, Camestres, Festino, Baroco, secunda. Tertia Darapti sibi vindicat, atque Felapton, Adjungens Disamis, Datisi, Bocardo, Ferison.

The *special Rules* of the three Figures are these. In the *first Figure* the major Proposition must always be universal, and the minor affirmative.

In the fecond Figure also the major must be universal, and one of the Premisses, together with the Conclusion, must be negative.

In the third Figure the minor must be affirma-

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tive, and the Conclusion always particular.

There is also a fourth Figure wherein the middle Term is predicated in the major Proposition, and subjected in the minor: But this is a very indirect and oblique manner of concluding, and is never used in the Sciences, nor in human Life, and therefore I call it useless.—Some Logicians will allow it to be nothing else but a mere Inversion of the first Figure; the Moods of it, (viz.) Baralipton, or Barbari, Calentes, Dibatis, Fespamo, Fressom, are not worthy to be explain'd by one Example.

SECT. IV.

Of Complex Syllogifms.

IT is not the mere Use of complex Terms in a Syllogism that gives it this Name, tho one of the Terms is usually complex; but those are properly called complex Syllogisms, in which the middle Term is not connected with the whole Subject,

Subject, or the whole Predicate in two distinct Propositions, but is intermingled and compared with them by Parts, or in a more confus'd manner, in different Forms of Speech; as,

The Sun is a senseless Being;

The Persians worshipped the Sun;

Therefore the Persians worshipped a senseles Be-

Here the Predicate of the Conclusion is worhipped a fenfeles Being, part of which is join'd with the middle Term Sun in the major Proposition, and the other Part in the minor.

Tho' this fort of Argument is confess'd to be mangled, or confused, and irregular, if examined by the Rules of simple Syllogisms; yet there is a great Variety of Arguments used in Books of Learning, and in common Life, whose Consequence is strong and evident, and which must be tank'd under this Head; as,

I. Exclusive Propositions will form a complex Argument; as, pious Men are the only Favourites of Heaven; true Christians are Favourites of Heaven; therefore true Christians are pious Men. Or thus, Hypocrites are not pious Men; therefore Hypocrites are no Favourites of Heaven.

II. Exceptive Propositions will make such complex Syllogisms; as, None but Physicians came to the Consultation; the Nurse is no Physician; therefore the Nurse came not to the Consultation.

III. Or, Comparative Propositions; as, Knowedge is better than Riches; Virtue is better than
to Knowledge; therefore Virtue is better than Riches.
he or thus, a Dove will fly a Mile in a Minute; a
Swallow

Swallow flies swifter than a Dove; therefore a Swallow will fly more than a Mile in a Minute.

- IV. Or Inceptive and Desitive Propositions; as, the Fogs vanish as the Sun arises; but the Fogs have not yet begun to vanish; therefore the Sun is not yet risen.
- V. Or Modal Propositions; as, It is necessary that a General understand the Art of War; but Caius does not understand the Art of War; therefore it is necessary Caius should not be a General. Or thus, A total Eclipse of the Sun would cause Darkness at Noon; it is possible that the Moon at that Time may totally eclipse the Sun; therefore it is possible that the Moon may cause Darkness at Noon.

Beside all these, there is a great Number of complex Syllogisms which can hardly be reduced under any particular Titles, because the Forms of human Language are so exceeding various; as,

Christianity requires us to believe what the Apostles wrote; St. Paul is an Apostle; therefore Christianity requires us to believe what St. Paul wrote.

No human Artist can make an Animal; a Fly or a Worm is an Animal; therefore no human Artist

can make a Fly or a Worm.

The Father always lived in London; the Son always liv'd with the Father; therefore the Son always liv'd in London.

The Blossom soon follows the full Bud; this Pear Tree bath many full Buds; therefore it will short bave many Blossoms.

One Hailstone never falls alone; but a Hailston

fell just now; the refore others fell with it.

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Thunder seldom comes without Lightning; but it thundered Yesterday; therefore probably it lightned also.

Moses wrote before the Trojan War; the first Greek Historians wrote after the Trojan War; therefore the first Greek Historians wrote after

Mofes *.

Now the Force of all these Arguments is so evident and conclusive, that the the Form of the Syllogism be never so irregular, yet we are sure the Inferences are just and true; for the Premisses, according to the Reason of Things, do really contain the Conclusion that is deduced from them, which is a never failing Test of true Syllogisms, as shall be shewn hereafter.

The Truth of most of these complex Syllogisms may also be made to appear (if needful) by reducing them either to regular, simple Syllogisms, or to some of the conjunctive Syllogisms, which are described in the next Section. I will give an Instance only in the first, and leave the rest to exercise the Ingenuity of the Reader.

The first Argument may be reduced to a Syl-

logism in Barbara thus,

The Sun is a senseles Being;

What the Persians worshipped is the Sun;

Therefore what the Persians worshipped is a senseles Being. Tho' the conclusive Force of this Argument is evident without this Reduction.

Perhaps some of these Syllogisms may be reduced to those which I till Connexive afterward; but it is of little Moment to what Species they belong: for it is not any formal Sett of Rules so much as the Evidence and Force of Reason that must determine the Truth or Falshood of all such Syllogisms.

SECT. V.

Of conjunctive Syllogisms.

Hose are called conjunctive Syllogisms, wherein one of the Premisses, namely the major, ha distinct Parts, which are join'd by a Conjunction or some such Particle of Speech. Most Time the major or minor, or both, are explicitly com pound Propositions: And generally the major Pro position is made up of two distinct Parts or Pro positions in such a manner, as that by the Affer tion of one in the minor, the other is either al ferted or denied in the Conclusion: Or by the De nial of one in the minor, the other is either afferte or denied in the Conclusion. It is hardly possible indeed to fit any short Definition to include a the Kinds of them; but the chief amongst the are the conditional Syllogism, the disjunctive, th relative, and the connexive.

I. The conditional or bypothetical Syllogism whose major or minor, or both, are conditions Propositions; as, If there be a God, the World govern'd by Providence; but there is a God; there fore the World is govern'd by Providence.

These Syllogisms admit two forts of true Argu

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mentation, where the major is conditional.

1. When the Antecedent is afferted in the mor, that the Consequent may be afferted in the Conclusion; such is the preceding Example. The is called arguing from the Position of the Antecedent to the Position of the Consequent.

2. When the Consequent is contradicted the minor Proposition, that the Antecedent m be contradicted in the Conclusion; as, If Aibi

are in the right, then the World exists without a Cause; but the World does not exist without a Cause; therefore Atheists are not in the right. This is called arguing from the removing of the Conse-

quent to the removing of the Antecedent.

To remove the Antecedent or Consequent here does not merely signify the Denial of it, but the Contradiction of it; for the mere Denial of it by a contrary Proposition will not make a true Syllogism, as appears thus: If every Creature be reasonable, every Brute is reasonable; but no Brute is reasonable; therefore no Creature is reasonable. Whereas if you say in the minor, but every Brute is not reasonable, then it would follow truly in the Conclusion, therefore every Creature is not reasonable.

When the Antecedent or Consequent are negative Propositions, they are remov'd by an Affirmative; as, If there be no God, then the World does not discover creating Wisdom; but the World does discover creating Wisdom; therefore there is a God. In this Instance the Consequent is remov'd or contradicted in the minor, that the Antecedent may be contradicted in the Conclusion. So in this Argument of St. Paul, 1 Cor. xv. If the Dead rise not, Christ died in vain; but Christ did not die in

vain; therefore the Dead shall rise.

There are also two sorts of false Arguing, (viz.) (1.) From the removing of the Antecedent to the removing of the Consequent; or, (2.) From the Position of the Consequent to the Position of the Antecedent. Examples of these are easily fram'd; as,

(1.) If a Minister were a Prince he must be honoured; But a Minister is not a Prince;

Therefore he must not be honour'd.

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(2.) If a Minister were a Prince, be must be bonoured; But a Minister must be bonoured;

Therefore be is a Prince.

Who fees not the ridiculous Falshood of both these Syllogisms?

Observ. I. If the Subject of the Antecedent and the Consequent be the same, then the hypothetical Syllogism may be turned into a categorical One; as, If Cæsar be a King he must be honoured; but Cæsar is a King; therefore, &c. This may be changed thus, Every King must be honoured; but Cæsar is a King; therefore, &c.

Observ. II. If the major Proposition only be conditional, the Conclusion is categorical: But if the minor or both be conditional, the Conclusion is also conditional; as, The Worshippers of Images are Idolaters; If the Papists worship a Crucifix, they are Worshippers of an Image; therefore if the Papists worship a Crucifix, they are Idolaters. But this fort of Syllogisms should be avoided as much as possible in Disputation, because they greatly embarrass a Cause: The Syllogisms, whose major only is bypothetical, are very frequent, and us'd with great Advantage.

H. A disjunctive Syllogism is when the major Proposition is disjunctive; as, The Earth moves in a Circle or an Ellipsis; but it does not move in a Circle; therefore it moves in an Ellipsis.

A disjunctive Syllogism may have many Members or Parts thus; it is either Spring, Summer, Autumn, or Winter; but it is not Spring, Autumn, or

Winter; therefore it is Summer.

The true Method of arguing here is from the Affertion of one, to the Denial of the rest, or from the

be Denial of one or more, to the Assertion of what emains: but the major should be so framed, that he several Parts of it can't be true together, tho ne of them is evidently true.

III. A relative Syllogism requires the major Procosition to be relative; as Where Christ is there
chall his Servants be; but Christ is in Heaven;
cherefore his Servants shall be there also. Or, As
the Captain, so are his Soldiers; but the Captain
a Coward; therefore his Soldiers are so too.

Arguments that relate to the Doctrine of Proortion must be referred to this Head; as, As so are to four, so are three to six; but two make he half of four; therefore three make the half of

Besides these, there is another sort of Syllogism hich is very natural and common, and yet Autors take very little notice of it, call it by an aproper Name, and describe it very desectively, id that is,

IV. A connexive Syllogism. This some have alled copulative; but it does by no means require a major to be a copulative nor a compound Prosition (according to the Definition given of it, art II. Chap. II. Sect. 6.) but it requires that so or more Ideas be so connected either in the implex Subject or Predicate of the major, that one of them be affirmed or denied in the minor, immon Sense will naturally shew us what will the Consequence. It would be very tedious duseless to frame particular Rules about them, will appear by the following Examples, which every various, and may yet be farther multied.

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(1.) Meek-

(1.) Meekness and Humility always go together Moses was a Man of Meekness, therefore Mose was also humble. Or we may form this minor Pharaoh was no humble Man; therefore he was no meek.

(2.) No Man can serve God and Mammon; the covetous Man serves Mammon; therefore he can not serve God. Or the minor may run thus, the true Christian serves God; therefore he does not serve

Mammon.

(3.) Genius must join with Study to make a great Man; Florino has Genius but he cannot study; there fore Florino will never be a great Man: Or thus Quintus studies hard but has no Genius; therefor Quintus will never be a great Man.

(4.) Gulo can't make a Dinner without Flesh an Fish; there was no Fish to be gotten to Day; there

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fore Gulo this Day cannot make a Dinner.

(5.) London and Paris are in different Latitudes the Latitude of London is 51 ½ Deg. therefore the cannot be the Latitude of Paris.

(6.) Joseph and Benjamin had one Mother Rachel was the Mother of Joseph; therefore h

was Benjamin's Mother too.

(7.) The Father and the Son are of equal Stature. The Father is fix Foot high; therefore the Son is fi

Foot bigh alfo.

(8.) Pride is inconsistent with Innocence; Ange have Innocence; therefore they have no Pride. Othus; Devils have Pride; therefore they have no Innocence.

I might multiply other Instances of these connexive Syllogisms, by bringing in all forts of a ceptive, exclusive, comparative, and modal Propsitions into the Composition of them; for these may be wrought into conjunctive, as well into simple Syllogisms, and thereby we may rend

them complex. But it would waste Time and Paper without equal Profit.

Concerning these various Kinds of conjunctive

Syllogisms, take these two Observations.

Observ. I. Most of them may be transformed into categorical Syllogisms by those who have a mind to prove the Truth of them that Way; or they may be easily converted into each other by changing the Forms of Speech.

Observ. II. These conjunctive Syllogisms are seldom deficient or faulty in the Form of them; for such a Desicience would be discovered at first Glance generally by common Reason, without any artificial Rules of Logick: The chief Care therefore is to see that the major Proposition be true, upon which the whole Force of the Argument usually depends.

SECT. VI.

Of compound Syllogisms.

WE properly call those compound Syllogisms which are made up of two or more single yllogisms, and may be resolved into them. The hief Kinds are these, Epichirema, Dilemma, Pro-llogismus, and Sorites.

I. Epichirema is a Syllogism which contains the toos of the major or minor, or both, before it taws the Conclusion. This is often used in Wring, in publick Speeches, and in common Constration, that so each Part of the Discourse may confirmed and put out of Doubt, as it moves

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end the on toward the Conclusion, which was chiefly defigned. Take this Instance;

Sickness may be good for us; for it weans us from the Pleasures of Life, and makes us think of dy-

ing;

But we are uneasy under Sickness, which appears by our Impatience, Complaints, Groanings, &c.

Therefore we are uneasy sometimes under that

which is good for us.

Another Instance you may see in Cicero's Oration in Desence of Milo, who had slain Clodius. His major Proposition is, that it is lawful for one Man to kill another who lies in wait to kill him; which he proves from the Custom of Nations, from natura Equity, Examples, &c. his minor is, that Clodiu laid wait for Milo; which he proves by his Arms Guards, &c. and then infers the Conclusion, that it was lawful for Milo to kill Clodius.

II. A Dilemma is an Argument which divide the whole into all its Parts or Members by a difficultive Proposition, and then infers something concerning each Part which is finally infer'd concerning the whole. Instances of this are frequent as, In this Life we must either obey our vicious had clinations or resist them: To obey them will bring signal Sorrow, to resist them is laborious and painful Therefore we cannot be perfectly free from Sorrow Pain in this Life.

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A Dilemma becomes faulty or ineffectual throways: First, When the Members of the Division are not well opposed, or not fully enumerated; to then the major is false. Secondly, When what afferted concerning each part is not just; for the the minor is not true. Thirdly, When it may be retorted.

retorted with equal Force upon him who ut-

ters it.

There was a famous antient Instance of this Case wherein a Dilemma was retorted. Euathlus promised Protagoras a Reward when he had taught him the Art of Pleading, and it was to be paid the first Day that he gain'd any Cause in the Court. After a confiderable time Protagoras goes to Law with Euathlus for the Reward, and uses this Dilemma; Either the Cause will go on my Side or on yours: If the Cause goes on my Side, you must pay me according to the Sentence of the Judge: if the Cause goes on your Side, you must pay me according to your Bargain: Therefore whether the Cause goes for me or against me you must pay me the Reward. But Enathlus retorted this Dilemma thus: Either I hall gain the Cause or lose it: If I gain the Cause, then nothing will be due to you according to the Sentence of the Judge: But if I tose the Cause, nothing will be due to you according to my Bargain: Therefore whether I lose or gain the Cause I will not pay you, for nothing will be due to you.

Note 1. A Dilemma is usually described as tho' it always proved the Absurdity, Inconvenience, or Unreasonableness of some Opinion or Practice; and this is the most common Design of it; but it is plain, that it may also be used to prove the Truth or Advantage of any thing proposed; as, In Heaven we shall either have Desires or not: If we have no Desires, then we have full Satisfaction; if we have Desires, they shall be satisfied as fast as they arise; therefore in Heaven we shall be compleatly

Satisfied.

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Note 2. This fort of Argument may be composed of three or more Members, and may be called a Trilemma.

III. A Prosyllogism is when two or more Syllogisms are so connected together, that the Conclusion of the former is the major or the minor of the following; as, Blood can't think; but the Soul of Man is not Blood; but the Soul of a Brute is his Blood according to the Scripture; therefore the Soul of Man is different from the Soul of a Brute. See another Instance in the Introduction to this Treatise, p. 5.

IV. A Sorites is when several middle Terms are chosen to connect one another successively in several Propositions, till the last Proposition connects its Predicate with the first Subject. Thus, All Men of Revenge have their Souls often uneasy; uneasy Souls are a Plague to themselves; now to be ones own Plague is Folly in the extreme; therefore all Men of Revenge are extreme Fools.

The Apostle, Rom. viii. 29. gives us an Instance of this sort of Argument if it were reduced to exact Form: Whom he foreknew those he predestinated; whom he predestinated he called; whom he called he justified; whom he justified he glorified; therefore

whom he foreknew he glorified.

To these Syllogisms it may not be improper to add Induction, which is, when from several particular Propositions we infer one general; as, The Doctrine of the Socinians cannot be proved from the Gospels, it cannot be proved from the Acts of the Apostles, it cannot be proved from the Epistles, nor the Book of Revelations; therefore it cannot be proved from the New Testament.

Note, This fort of Argument is often defective, because there is not due Care taken to enumerate all the Particulars on which the Conclusion should

depend.

All

All these four Kinds of Syllogisms in this Section may be called redundant, because they have more than three Propositions. But there is one sort of Syllogism which is defettive, and is call'd an Enthymem, because only the Conclusion with one of the Premisses is exprest, while the other is supposed and reserved in the Mind: Thus, There is no true Religion without good Morals; therefore a Knave cannot be truly religious: Or thus, It is our Duty to love our Neighbours as ourselves; therefore there are but sew who perform their Duty.

Mote, This is the most common fort of Argument amongst Mankind both in Writing and in Speaking; for it would take up too much Time, and too much retard the Discourse to draw out all our Arguments in Mood and Figure. Besides, Mankind love to have so much Compliment paid to their Understandings as to suppose that they know the Major or Minor, which is suppressed and implied, when you pronounce the other Premiss and

the Conclusion.

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If there be any Debate about this Argument, the Syllogism must be compleated in order to try its Force and Goodness by adding the absent Proposition.

SECT. VII,

Of the middle Terms, of common Places or Topics, and Invention of Arguments.

THE next Division of Syllogisms is according to the middle Term, which is made use of in the Proof of any Proposition. Now the middle Term (as we have hinted before) is often called the Argument, because the Force of the Syllogism depends upon it: We must make a little Delay here

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to treat briefly of the Doctrine of Topics, or Places whence middle Terms or Arguments are drawn.

All Arts and Sciences have fome general Sub. jects which belong to them, which are call'd To. pics, or common Places; because middle Terms are borrow'd, and Arguments deriv'd from them for the Proof of the various Propositions which we have occasion to discourse of. The Topics of Grammar are Etymology, Noun, Verb, Construction on, Signification, &c. The Topicks of Logic are Genus, Species, Difference, Property, Definition, Division, &c. The Topics of Ontology or Metaphysics are Cause, Effett, Action, Passion, Identity, Opposition, Subject, Adjunct, Sign, &c. The Topics of Morality or Ethics are Law, Sin, Duty, Authority, Freedom of Will, Command, Threatning, Reward, Punishment, &c. The Topics of Theology are God, Christ, Faith, Hope, Worship, Salvation, &c.

To these several Topics there belong particular Observations, Axioms, Canons or Rules*, which are laid down in their proper Sciences; as,

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Grammar hath fuch Canons, (viz.) Words in a different Construction obtain a different Sense. Words deriv'd from the same Primitive may probably have some Affinity in their original Meaning, &c.

Canons in Logic are such as these, Every Part of a Division singly taken must contain less that the Whole. A Desinition must be peculiar and preper to the Thing defin'd. Whatever is affirmed a denied of the Genus, may be affirmed or denied of the Species, &c.

Metaphysical Canons are such as these; final Causes belong only to intelligent Agents. If a natural and necessary Cause operate, the Effect will follow,

^{*} A Canon is a Proposition declaring some Property of the Subject, which is not express in the Definition or Division of it.

C.II. S.7. The right Use of Reason. 3

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Now it has been the Custom of those who teach Logick or Rhetorick to direct their Disciples, when they want an Argument, to consult the several Topics which are suited to their Subject of Discourse, and to rummage over the Definitions, Divisions and Canons that belong to each Topic. This is call'd the Invention of an Argument; and it is taught with much Solemnity in some Schools.

I grant there may be good Use of this Practice for Persons of a lower Genius, when they are to compose any Discourse for the Publick; or for those of superior Parts to refresh their Memory, and revive their Acquaintance with a Subject which has been long absent from their Thoughts; or when their natural Spirits labour under Indispofition and Languor; but when a Man of moderate Sagacity has made himself Master of his Theme by just Diligence and Enquiry, he has seldom need to run knocking at the Doors of all the Topics that he may furnish himself with Argument or Matter of speaking: And indeed it is only a Man of Sense and Judgment that can use common Places or Topics well; for amongst this Variety he only knows what is fit to be left out, as well as what is fit to be spoken.

By some logical Writers this Business of Topics, and Invention is treated of in such a manner with mathematical Figures and Diagrams, fill'd with the barbarous technical Words, Napeas, Nipcis, Ropcos, Nosrop, &c. as the an ignorant Lad were to be led mechanically in certain artificial Harnesses and Trammels to find out Arguments to prove or resute any Proposition whatsoever, without any rational Knowledge of the Ideas. Now there is no Need to throw Words of Contempt on such

a Practice :

a Practice; the very Description of it carries Re. proof and Ridicule in Abundance.

SECT. VIII.

Of Several Kinds of Arguments and Demonstrations.

W E proceed now to the Division of Syllogisms according to the middle Term; and in this Part of our Treatise the Syllogisms themselves are properly called Arguments, and are thus distributed.

I. Arguments are call'd Grammatical, Logical, Metaphysical, Physical, Moral, Mechanical, Theological, &c. according to the Art, Science, or Subject whence the middle Term or Topick is borrow'd. Thus if we prove that no Man should steal from his Neighbour because the Scripture forbids it, this is a theological Argument: If we prove it from the Laws of the Land, it is political; but if we prove it from the Principles of Reason and Equity, the Argument is moral.

II. Arguments are either certain and evident, or

doubtful and merely probable.

Probable Arguments are those whose Conclusions are proved by some probable Medium; as, This Hill was once a Church-Yard, or a Field of Battle, because there are many human Bones sound bere. This is not a certain Argument, for human Bones might have been conveyed there some other Way.

Evident and certain Arguments are call'd Demonstrations; for they prove their Conclusions by clear Mediums and undoubted Principles; and they are generally divided into these two Sorts.

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I. Demonstrations a Priori, which prove the Effect by its necessary Cause; as, I prove the Scripture is infallibly true, because it is the Word of

God, who cannot lye.

2. Demonstrations a Posteriori, which infer the Cause from its necessary Esfect; as, I infer there bath been the Hand of some Artificer here, because I find a curious Engine. Or, I infer there is a God, from the Works of his Wisdom in the visible World.

The last of these is call'd Demonstratio 18 on, because it proves only the Existence of a Thing; the first is nam'd Demonstratio 18 Store, because it

shews also the Cause of its Existence.

But Note, That tho' these two sorts of Arguments are most peculiarly call'd Demonstrations, yet generally any strong and convincing Argument obtains that Name; and it is the Custom of Mathematicians to call all their Arguments Demonstrations, from what Medium soever they derive them.

III. Arguments are divided into artificial and

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An artificial Argument is taken from the Nature and Circumstances of the Things; and if the Argument be strong it produces a natural Certainty; as The World was first created by God, because nothing can create itself.

An inartificial Argument is the Testimony of another, and this is call'd original, when our Information proceeds immediately from the Persons concern'd, or from Eye or Ear-Witnesses of a Fact: it is call'd Tradition when it is deliver'd by the

Report of others.

We have taken Notice before, that Testimony is either divine or human. If the human Testimony be strong, it produces a moral Certainty; but

but divine Testimony produces a supernatural Cer.

tainty which is far superior.

Note, Arguments taken from buman Testimony as well as from Laws and Rules of Equity, are called moral; and indeed the same Name is also applied to every sort of Argument which is drawn from the free Actions of God, or the contingent Actions of Men, wherein we cannot arise to a natural Certainty, but content ourselves with an high Degree of Probability, which in many Cases is scarce inferior to natural Certainty.

IV. Arguments are either direct or indirect. It is a direct Argument where the middle Term is fuch as proves the Question itself, and infers that very Proposition which was the Matter of Enquiry. An indirect or oblique Argument proves or refutes some other Proposition, and thereby makes the Thing enquir'd appear to be true by plain

Consequence.

Several Arguments are call'd indirect; as, (1.) When some contradictory Proposition is prov'd to be false, improbable or impossible: Or when upon Supposition of the Falshood or Denial of the original Proposition, some Absurdity is inferred. This is called a Proof per impossible, or a Reductio ad absurdum. (2.) When some other Proposition is prov'd to be true which is less probable, and thence it follows that the original Proposition is true, because it is more probable. This is an Argument ex magis probabili ad minus. (3.) When any other Proposition is prov'd upon which it was before agreed to yield the original Question. This is an Argument ex Concesso.

V. There is yet another Rank of Arguments which have Latin Names; their true Distinction

is derived from the Topics or middle Terms which are used in them, the they are called an Address to our Judgment, our Faith, our Ignorance, our Profession, our Modesty, and our Passions.

I. If an Argument be taken from the Nature or Existence of Things, and address'd to the Reason of Mankind, it is call'd Argumentum ad

Judicium.

2. When it is borrow'd from some convincing Testimony, it is Argumentum ad Fidem, an Address in our Faith

to our Faith.

3. When it is drawn from any infufficient Medium whatsoever, and yet the Opposer has not Skill to refute or answer it, this is Argumentum ad

Ignorantiam, an Address to our Ignorance.

4. When it is built upon the profest Principles or Opinions of the Person with whom we argue, whether these Opinions be true or false, it is named Argumentum ad Hominem, an Address to our profest Principles. St. Paul often uses this Argument when he reasons with the Jews, and when he says, I speak as a Man.

5. When the Argument is fetch'd from the Sentiments of some wise, great, or good Men, whose Authority we reverence and hardly dare oppose, it is called Argumentum ad Verecundiam, an

Address to our Modesty.

6. I add finally, when an Argument is borrowed from any Topics which are suited to engage the Inclinations and Passions of the Hearers on the Side of the Speaker, rather than to convince the Judgment, this is Argumentum ad Passiones, an Address to the Passions; or if it be made publickly, it is call'd ad Populum, or an Appeal to the People.

After

After all these Divisions of Syllogism or Argument arising from the middle Term, there is one Distinction proper to be mention'd which arises from the Premisses. An Argument is call'd uniform when both the Premisses are deriv'd from the same Springs of Knowledge, whether it be Sense, Reason, Consciousness, buman Faith, or divine Faith: But when the two Premisses are deriv'd from different Springs of Knowledge, it is call'd a mint Argument.

Whether the Conclusion must be call'd Human or Divine, when one or both Premisses are Matters of Divine Faith but the Conclusion is drawn by buman Reason, I leave to be disputed and

determin'd in the Schools of Theology.

Thus the fecond Chapter is finish'd, and a particular Account given of all the chief Kinds or Syllogisms or Arguments which are made use of among Men, or treated of in Logick, together with special Rules for the Formation of them, as far

as is necessary.

If a Syllogism agree with the Rules which are given for the Construction and Regulation of it, it is called a true Argument: If it disagree with these Rules, it is a Paralogism, or false Argument: But when a salse Argument puts on the Face and Appearance of a true one, then it is properly called a Sophism or Fallacy, which shall be the Subject of the next Chapter.

CHAP. III.

The Doctrine of Sophisms.

FROM Truth nothing can really follow but what is true: Whensoever therefore we find a false Conclusion drawn from Premisses which seem to be true, there must be some Fault in the Deduction or Inserence; or else one of the Premisses is not true in the Sense in which it is used in that Argument.

When an Argument carries the Face of Truth with it, and yet leads us into Mistake, it is a Sophism; and there is some Need of a particular Description of these fallacious Arguments, that we may with more Ease and Readiness detect and

folve them.

SECT. I.

Of several Kinds of Sophisms, and their Solution.

As the Rules of right Judgment and of good Ratiocination often coincide with each other, so the Doctrine of Prejudices, which was treated of in the second Part of Logick, has anticipated a great deal of what might be said on the Subject of Sophisms; yet I shall mention the most remarkable Springs of salse Argumentation, which are reduc'd by Logicians to some of the sollowing Heads.

I. The first fort of Sophism is call'd Ignoration Elenchi, or a Mistake of the Question; that is, when fomething elfe is prov'd which has neither any necessary Connection or Inconsistency with the Thing enquired, and confequently gives no Determination to the Enquiry, tho' it may feem at first Sight to determine the Question; as, if any should conclude that St. Paul was not a native Tew, by proving that he was born a Roman; or if they should pretend to determine that he was neither Roman, nor Jew, by proving that he was born at Tarfus in Cilicia: These Sophisms are refuted by shewing that all these three may be true; for he was born of Jewish Parents in the City of Tarsus, and by some peculiar Privilege granted to his Parents, or his native City, he was born a Denizon of Rome. Thus there is neither of these three Characters of the Apostle inconsistent with each other, and therefore the proving one of them true does not refute the others.

Or if the Question be propos'd, Whether Excess of Wine can be burtful to him that drinks it, and the Sophister should prove that it revives his Spirits, it exhilarates his Soul, it gives a Man Courage, and makes him strong and active, and then he takes it for granted that he has prov'd his Point.

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But the Respondent may easily shew that tho' Wine may do all this, yet it may be finally hurtful both to the Soul and Body of him that drinks it to

excess.

Disputers when they grow warm are ready to run into this Fallacy: They dress up the Opinion of their Adversary as they please, and ascribe Sentiments to him which he doth not adknowledge; and when they have with a great deal of Pomp attacked and consounded these Images of Straw

f their own making, they triumph over their Adversary as the they had utterly confuted his

Opinion.

It is a Fallacy of the same kind which a Dispuant is guilty of when he finds that his Adversary too hard for him, and that he cannot fairly rove the Question first propos'd; he then with lyness and Subtilty turns the Discourse aside to ome other kindred Point which he can prove, and exults in that new Argument wherein his opponent never contradicted him.

The Way to prevent this Fallacy is by keeping to Eye fixt on the precise Point of Dispute, and either wandring from it ourselves, nor suffering to Mander from it, or substitute

y thing else in its Room.

II. The next Sophism is called Petitio Principii, a Supposition of what is not granted; that is, when y Proposition is proved by the same Proposition other Words, or by fomething that is equally certain and disputed: As if any one undertake prove that the buman Soul is extended thro' all Parts of the Body, because it resides in every lember, which is but the fame Thing in other ords. Or if a Papist should pretend to prove at bis Religion is the only Catholick Religion, and derived from Christ and his Apostles, because it rees with the Dostrine of all the Fathers of the urch, all the boly Martyrs, and all the Christian orld throughout all Ages: Whereas this is a great int in Contest, whether their Religion does tee with that of all the Antients and the mitive Christians, or no.

II. That Sort of Fallacy which is called a the is very near akin to the Petitio Principii; as,

when one of the Premisses in a Syllogism is que tioned and opposed, and we intend to prove by the Conclusion: Or, when in a Train of Syllogisms we prove the last by recurring to wh was the Conclusion of the first. The Papiss a famous at this Sort of Fallacy, when they protected the Scripture to be the Word of God by the Author or infallible Testimony of their Church; and whethey are called to shew the infallible Authority their Church, they pretend to prove it by Scripture.

IV. The next kind of Sophism is called a Causa pro Causa, or the Assignation of a salse Causa pro Causa, or the Assignation of a salse Causa pro Causa, or the Assignation of a salse Causa This the Peripatetic Philosophers were guilty continually, when they told us that certain Being which they called substantial Forms, were Springs of Colour, Motion, Vegetation, and various Operations of natural Beings in the a mate and inanimate World; when they inform us that Nature was terribly assigned of Vacuum, a that this was the Cause why the Water would fall out of a long Tube if it was turned up down: The Moderns as well as the Antients often into this Fallacy when they positively assigned the Reasons of natural Appearances, with sufficient Experiments to prove them.

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Astrologers are over-run with this Sort of Facies, and they cheat the People grossy by prete ing to tell Fortunes, and to deduce the Cause the various Occurrences in the Lives of M from the various Positions of the Stars and Plan

which they call Aspetts.

When Comets and Eclipses of the Sun and Mare construed to signify the Fate of Princes, Revolution of States, Famine, Wars and Cala

ties of all Kinds, it is a Fallacy that belongs to

this Rank of Sophisms.

There is scarce any thing more common in human Life than this Sort of deceitful Argument. If any two accidental Events happen to concur, one is presently made the Cause of the other. Titius wronged his Neighbour of a Guinea, and in fix Months after he fell down and broke his Leg, weak Men will impute it to the divine Vengeance on Titius for his former Injustice. This Sophism was found also in the early Days of the World: For when holy Job was surrounded with uncommon Miseries, his own Friends inferr'd, that he was a most beinous Criminal, and charged him with aggravated Guilt as the Cause of his Calamities; tho God himself by a Voice from Heaven solv'd this uncharitable Sophism, and cleared his Servant Job of that Charge.

How frequent is it among Men to impute Crimes to wrong Persons? We too often charge that upon the wicked Contrivance and premeditated Malice of a Neighbour, which arose merely from Ignorance, or from unguarded Temper. And on the other hand, when we have a Mind to excuse ourselves, we practise the same Sophism, and charge that upon our Inadvertence or our Ignorance, which perhaps was design'd Wickedness. What is really done by a Necessity of Circumstances, we sometimes impute to Choice: And again, we charge that upon Necessity, which was really

defired and chosen.

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Sometimes a Person acts out of Judgment in Opposition to his Inclination; another Person perhaps acts the same Thing out of Inclination, and against his Judgment. 'Tis hard for us to determine with Assurance what are the inward X 2 Springs

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Springs and secret Causes of every Man's Conduct; and therefore we should be cautious and slow in passing a Judgment, where the Case is not exceeding evident: And if we should mistake, let it rather be on the charitable than on the censorious Side.

'Tis the same Sophism that charges mathematical Learning with leading the Minds of Men to Scepticism and Infidelity, and as unjustly accuse the new Philosophy of paving the Way to Heres Thus the Reformation from Poper and Schism. has been charged with the Murder and Blood of Millions, which in Truth is to be imputed to the Tyranny of the Princes and the Priests, who would not fuffer the People to reform their Sentiment and their Practices according to the Word o God. Thus Christianity in the primitive Age was charged by the Heathens with all the Cala mities which befel the Roman Empire, because the Christians renounced the Heathen Gods and Idols.

The Way to relieve ourselves from these so phisms, and to secure ourselves from the Dange of falling into them, is an honest and diliger Enquiry into the real Nature and Causes of Things with a constant Watchfulness against all those Prejudices that might warp the Judgment aside from Truth in that Enquiry.

V. The next is called fallacia Accidentis, or Sophism wherein we pronounce concerning the Nature and effential Properties of any Subject as cording to something which is merely accident to it. This is akin to the former, and is also ver frequent in human Life. So if Opium or the Peruvian Bark has been used imprudently or un successfully

successfully, whereby the Patient has received Injury, fome weaker People absolutely pronounce against the Use of the Bark or Opium upon all Occasions whatsoever, and are ready to call them Poison. So Wine has been the accidental Occafion of Drunkenness and Quarrels; Learning and Printing may have been the accidental Cause of Sedition in a State; the Reading of the Bible by Accident hath been abused to promote Heresies or destructive Errors; and for these Reasons they have been all pronounced evil Things. Mahomet forbad his Followers the Use of Wine; the Turks discourage Learning in their Dominions; and the Papists forbid the Scripture to be read by the Laity. But how very unreasonable are these Inferences, and these Prohibitions which are built upon them!

VI. The next Sophism borders upon the former; and that is, when we argue from that which is true in particular Circumstances to prove the same thing true absolutely, simply, and abstracted from all Circumstances; this is called in the Schools a Sophism a dicto secundum quid ad dictum simpliciter; as, That which is bought in the Shambles is eaten for Dinner; raw Meat is bought in the Shambles; therefore raw Meat is eaten for Dinner. Or thus, Livy writes Fables and Improbabilities when he describes Prodigies and Omens; therefore Livy's Roman History is never to be believed in any thing. Or thus, There may be some Mistake of Transcribers in some Part of Scripture; therefore Scripture alone is not a lase Guide for our Faith.

This Sort of Sophism has its Reverse also; as, when we argue from that which is true simply and bolutely to prove the same thing true in all parti-

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cular Circumstances whatsoever *; as if a Traytor should argue from the fixth Commandment, Thou shalt not kill a Man, to prove that he himself ought not to be hanged: Or if a Madman should tell me, I ought not to withhold his Sword from him, he cause no Man ought to withhold the Property of another.

These two last Species of Sophisms are easily solved by shewing the Difference betwixt Things in their absolute Nature, and the same Things surrounded with peculiar Circumstances, and considered in Regard to special Times, Places, Persons and Occasions; or by shewing the Difference between a moral and a metaphysical Universality, and that the Proposition will hold good in one Case, but not in the other.

VII. The Sophisms of Composition and Division come next to be mentioned.

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The Sophism of Composition is when we infer any thing concerning Ideas in a compounded Sense, which is only true in a divided Sense. As when it is said in the Gospel that Christ made the Blind to see, and the Deas to bear, and the Lame to walk, we ought not to infer hence that Christ performed Contradictions; but those who were blind before were made to see, and those who were deas before were made to hear, &c. So when the Scripture assures us the worst of Sinners may be saved, it signifies only that they who have been the worst of Sinners may repent and be saved, not that they shall be saved in their Sins. Or if any one should argue thus, Two and three are even and odd; for

^{*} This is arguing from a moral Universality which admits of some Exceptions, in the same manner as may be argued from metaphysical or a natural Universality, which admits of no Exceptions.

are two and three; therefore five are even and odd. Here that is very falfely infer'd concerning two or three in Union, which is only true of them

divided.

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The Sopbism of Division is when we infer the fame Thing concerning Ideas in a divided Sense, which is only true in a compounded Sense; as, if we should pretend to prove that every Soldier in the Grecian Army put an bundred thousand Persians to Flight, because the Grecian Soldiers did so. Or if a Man should argue thus; five is one Number; two and three are five; therefore two and three are one Number.

This fort of Sophisms is committed when the Word All is taken in a collective and a distributive Sense, without a due Distinction; as, if any one should reason thus; All the musical Instruments of the Jewish Temple made a noble Concert, The Harp was a musical Instrument of the Jewish Temple; therefore the Harp made a noble Concert. Here the Word All in the Major is collective, whereas fuch a Conclusion requires that the Word All should be distributive.

It is the same Fallacy when the universal Word All or No refers to Species in one Proposition, and to Individuals in another; as, All Animals were in Noah's Ark; therefore no Animals perish'd in the Flood: Whereas in the Premiss all Animals signifies every kind of Animals, which does not exclude or deny the drowning of a thousand Individuals.

VIII. The last fort of Sopbisms arises from our Abuse of the Ambiguity of Words, which is the largest and most extensive kind of Fallacy; and indeed several of the former Fallacies might be reduced to this Head.

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When the Words or Phrases are plainly equivocal, they are called Sophisms of Equivocation; as, if we should argue thus, He that sends forth a Book into the Light, desires it to be read; He that throws a Book into the Fire, sends it into the Light; therefore, he that throws a Book into the Fire desires it to be read.

This Sophism, as well as the foregoing, and all of the like Nature are solved by shewing the different Senses of the Words, Terms or Phrases. Here Light in the major Proposition signifies the publick View of the World; in the minor it signifies the Brightness of Flame or Fire, and therefore the Syllogism has four Terms, or rather it has no

middle Terms, and proves nothing.

But where fuch gross Equivocations and Ambiguities appear in Arguments, there is little Danger of imposing upon ourselves or others. The greatest Danger, and which we are perpetually exposed to in Reasoning, is, where the two Senses or Significations of one Term are near akin, and not plainly distinguished, and yet they are really sufficiently different in their Sense to lead us into great Mistakes, if we are not watchful. deed the greatest Part of Controversies in the sacred or civil Life arise from the different Senses that are put upon Words, and the different Ideas which are included in them; as has been shewn at large in the first Part of Logick, Chap. IV. which treats of Words and Terms.

There is after all these, another sort of Sophism which is wont to be called an impersett Emmeration, or a salse Induction, when from a sew Experiments or Observations Men infer general Theorems and universal Propositions. But this is sufficiently noticed in the foregoing Chapter, where we treated of that fort of Syllogism which is called

Induction.

SECT. II.

Two general Tests of true Syllogisms, and Methods of solving all Sophisms.

Besides the special Description of true Syllogisms and Sophisms already given, and the Rules by which the one are fram'd, and the other resuted, there are these two general Methods of reducing all Syllogisms whatsoever to a Test of their Truth or Falshood.

I. The first is, that the Premisses must (at least implicitly) contain the Conclusion; or thus, One of the Premisses must contain the Conclusion, and the other must shew that the Conclusion is contain'd in it. The Reason of this Rule is this; When any Proposition is offered to be proved, it is neceffary to find another Proposition which confirms it, which may be called the containing Proposition; but because the second must not contain the first in an express manner, and in the same Words*, therefore it is necessary that a third or oftensive Proposition be found out to shew that the fecond Proposition contains the first which was to be prov'd. Let us make an Experiment of this Syllogism. Whosever is a Slave to his natural Inclinations is miserable; the wicked Man is a Slave to his natural Inclinations; therefore the wicked Man is miserable. Here it is evident that the major Proposition contains the Conclusion;

^{*}It is confess'd that conditional and disjunctive major Propositions do expressy contain all that is in the Conclusion; but then it is not in a certain and conclusive Manner, but only in a dubious Form of Speech, and mingled with other Terms, and therefore it is not the same express Proposition.

for under the general Character of a Slave to natural Inclinations, a wicked Man is contain'd or included; and the minor Proposition declares it; whence the Conclusion is evidently deduc'd that

the wicked Man is miserable.

In many affirmative Syllogisms we may suppose either the major or the minor to contain the Conclusion, and the other to shew it; for there is no great Difference. But in negative Syllogisms it is the negative Proposition that contains the Conclusion, and the affirmative Proposition shews it; as, every wife Man masters bis Passions; no angry Man masters bis Passions; therefore no angry Man is wife. Here it is more natural to suppose the minor to be the containing Proposition; it is the minor implicitly denies Wisdom concerning an angry Man, because mastering the Passions is included in Wisdom, and the major shews it.

Note, This Rule may be applied to complex and conjunctive, as well as fimple Syllogisms, and is adapted to shew the Truth or Falshood of any of them.

II. The fecond is this; As the Terms in every Syllogism are usually repeated twice, so they must be taken precisely in the same Sense in both Places: For the greatest Part of Mistakes, that arise in forming Syllogisms, is deriv'd from some little Difference in the Sense of one of the Terms in the two Parts of the Syllogism wherein it is used. Let us consider the following Sophisms.

1. It is a Sin to kill a Man; a Murderer is a Man; therefore it is a Sin to kill a Murderer. Here the Word Kill in the first Proposition signifies to kill unjustly, or without a Law; in the Conclusion it is taken absolutely for putting a Man

Man to Death in general, and therefore the Inference

is not good.

therefore you are not a Man. This is a relative Syllogism: But if it be reduc'd to a regular categorical Form, it will appear there is Ambiguity in the Terms, thus; What I am, is a Man; you are not what I am; therefore you are not a Man. Here what I am, in the major Proposition, is taken specifically for my Nature; but in the minor Proposition the same Words are taken individually for my Person; therefore the Inference must be false, for the Syllogism doth not take the Term what I am both Times in the same Sense.

3. He that says you are an Animal, says true; but he that says you are a Goose, says you are an Animal; therefore he that says you are a Goose, says true. In the major Proposition the Word Animal is the Predicate of an incidental Proposition; which incidental Proposition being affirmative renders the Predicate of it particular, according to Chap. II. Sect. 2. Axiom. 3. and consequently the Word Animal there signifies only human Animality. In the minor Proposition, the Word Animal, for the same Reason, signifies the Animality of a Goose; thereby it becomes an ambiguous Term, and unsit to build the Conclusion upon. Or if you say, the Word Animal in the Minor is taken for human

It is from this last general Test of Syllogisms that we derive the Custom of the Respondent in answering the Arguments of the Opponent, which is to distinguish upon the major or minor Proposition, and declare which Term is used in two Senses, and in what Sense the Proposition may be true,

Animality, then the Minor is evidently false.

and in what Sense it is false.

CHAP. IV.

Some general Rules to direct our Reasoning.

MOST of the general and special Directions given to form our Judgments aright in the preceding Part of Logick might be rehearsed here; for the Judgments which we pass upon Things are generally built on some secret Reasoning or Argument by which the Proposition is supposed to be proved. But there may be yet some farther Assistances given to our reasoning Powers in their Search after Truth, and an Observation of the following Rules will be of great Importance for that End.

I. Rule. Accustom yourselves to clear and distinct Ideas, to evident Propositions, to strong and convineing Arguments. Converse much with those Friends, and those Books, and those Parts of Learning where you meet with the greatest Clearness of Thought and Force of Reasoning. The mathematical Sciences, and particularly Arithmetick, Geometry, and Mechanicks abound with these Advantages: And if there were nothing valuable in them for the Uses of human Life, yet the very speculative Parts of this fort of Learning are well worth our Study; for by perpetual Examples they teach us to conceive with Clearness, to connect our Ideas and Propositions in a Train of Dependence, to reason with Strength and Demonstration, and to distinguish between Truth and Falshood. Something of these Sciences should be studied by every Man who pretends to Learning, and that (as Mr. Locke expresses it) not so much to make

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make us Mathematicians, as to make us reasonable Creatures.

We should gain such a Familiarity with Evidence of Perception and Force of Reasoning, and get such a Habit of discerning clear Truths, that the Mind may be soon offended with Obscurity and Consussion: Then we shall (as it were) naturally and with Ease restrain our Minds from rash Judgment, before we attain just Evidence of the Proposition which is offer'd to us; and we shall with the same Ease, and (as it were) naturally seize and embrace every Truth that is propos'd with just Evidence.

This Habit of conceiving clearly, of judging justly, and of reasoning well, is not to be attain'd merely by the Happiness of Constitution, the Brightness of Genius, the best natural Parts, or the best Collection of logical Precepts. It is Custom and Practice that must form and establish this Habit. We must apply ourselves to it till we perform all this readily, and without reflecting on Rules. A coherent Thinker, and a strict Reasoner is not to be made at once by a Set of Rules, any more than a good Painter or Musician may be form'd extempore by an excellent Lecture on Musick or Painting. It is of infinite Importance therefore in our younger Years to be taught both the Value and the Practice of conceiving clearly and reasoning right: For when we are grown up to the middle of Life, or past it, it is no Wonder that we should not learn good Reafoning, any more than that an ignorant Clown should not be able to learn fine Language, Dancing, or a courtly Behaviour, when his rustic Airs have grown up with him till the Age of Forty.

For want of this Care some Persons of Rank and Education dwell all their Days among obscure Ideas; they conceive and judge always in Confusion, they take weak Arguments for Demonstration, they are led away with the Difguises and Shadows of Truth. Now if fuch Persons happen to have a bright Imagination, a Volubility of Speech, and a Copiousness of Language, they not only impose many Errors upon their own Understandings, but they stamp the Image of their own Mistakes.up. on their Neighbours also, and spread their Errors abroad.

It is a Matter of just Lamentation and Pity to consider the Weakness of the common Multitude of Mankind in this Respect, how they receive any thing into their Affent upon the most trifling Grounds. True Reasoning hath very little Share in forming their Opinions. They refift the most convincing Arguments by an obstinate Adherence to their Prejudices, and believe the most improbable Things with the greatest Assurance. talk of the abstrusest Mysteries, and determine upon them with the utmost Confidence, and without just Evidence either from Reason or Revelation. A confused Heap of dark and inconsistent Ideas make up a good Part of their Knowledge in Matters of Philosophy as well as Religion, having never been taught the Use and Value of clear and just Reasoning.

Yet it must be still confest that there are some Mysteries in Religion, both natural and revealed, as well as some abstruse Points in Philosophy, wherein the Wise as well as the Unwise must be content with obscure Ideas. There are several Things, especially relating to the invisible World, which are unsearchable in our present State, and therefore we must believe what Revelation plainly dic-

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tates, tho' the Ideas may be obscure. Reason it self demands this of us; but we should seek for the brightest Evidence both of Ideas, and of the Connection of them, wheresoever it is attainable.

II. Rule. Enlarge your general Acquaintance with Things daily, in order to attain a rich Furniture of Topicks, or middle Terms, whereby those Propositions which occur may be either proved or disproved; but especially meditate and enquire with great Diligence and Exactness into the Nature, Properties, Circumstances and Relations of the particular Subject about which you judge or argue. Consider its Causes, Effects, Consequences, Adjuncts, Opposites, Signs, &c. so far as is needful to your present Purpose. You should survey a Question round about, and on all Sides, and extend your Views as far as possible, to every Thing that has a Connexion with it. This Practice has many Advantages in it; as,

1. It will be a Means to suggest to your Minds proper Topicks for Argument about any Proposi-

tion that relates to the same Subject.

2. It will enable you with greater Readiness and Justness of Thought to give an Answer to any sudden Question upon that Subject, whether it arises in your own Mind, or to be proposed by others.

3. This will instruct you to give a plainer and speedier Solution of any Difficulties that may attend the Theme of your Discourse, and to resute the Objections of those who have espoused a con-

trary Opinion.

4. By such a large Survey of the whole Subject in all its Properties and Relations, you will be better secured from Inconsistencies, i. e. from afferting or denying any thing in one Place, which contradicts what you have afferted or denied in another.

other: And to attain these Ends, an Extensiveness of Understanding and a large Memory are of un-

Speakable Service.

One would be ready to wonder fometimes how eafily great and wife, and learned Men are led into Affertions in some Parts of the same Treatise. which are found to be scarce consistent with what they have afferted in other Places: But the true Reason is the Narrowness of the Mind of Man, that it cannot take in all the innumerable Properties and Relations of one Subject with a fingle View; and therefore whilst they are intent on one particular Part of their Theme, they bend all their Force of Thought to prove or disprove some Proposition that relates to that Part, without a sufficient Attention to the Consequences which may flow from it, and which may unhappily affect another Part of the same Subject, and by this Means they are fometimes led to fay things which are inconfistent. In such a Case the great Dealers in Dispute and Controversy take pleasure to cast Nonsense and Self-Contradiction on their Antagonist with huge and hateful Reproaches. For my part, I rather chuse to pity human Nature, whose neceffary Narrowness of Understanding exposes us all to some Degrees of this Frailty. But the most extensive Survey possible of our whole Subject is the best Remedy against it. It is our judging and arguing upon a partial View of Things, that exposes us to Mistakes, and pushes us into Absurdities, or at least to the very Borders of them.

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III. RULE. In fearching the Knowledge of Things, always keep the precise Point of the present Question in your Eye. Take heed that you add nothing to it while you are arguing, nor omit any Part of it.

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Watch carefully lest any new Ideas slide in to mingle themselves either with the Subject or the Predicate. See that the Question be not altered by the Ambiguity of any Word taken in different Senses; nor let any secret Prejudices of your own, or the sophistical Arts of others, cheat your Understanding by changing the Question, or shuf-

ling in any thing else in its room.

And for this End it is useful to keep the precise Matter of Enquiry as simple as may be, and disengred from a Complication of Ideas, which do not recessfarily belong to it. By admitting a Complication of Ideas, and taking too many Things at once into one Question, the Mind is sometimes dazzled and bewildered; and the Truth is lost in such a Variety and Consusion of Ideas; whereas by limiting and narrowing the Question, you take a fuller Survey of the whole of it.

By keeping the fingle Point of Enquiry in our onstant View, we shall be secured from sudden, ash, and impertinent Responses and Determinations, which some have obtruded instead of Somitions and solid Answers, before they perfectly

now the Questions.

IV. Rule. When you have exactly considered to precise Point of Enquiry, or what is unknown in a Question, then consider what, and how much you now already of this Question, or of the Ideas and terms of which it is composed. It is by a Comparison of the known and unknown Parts of the Question together, that you find what Reference the art known hath unto, or what Connection it hath the Thing that is sought: Those Ideas where the known and unknown Parts of the Question together, will furnish you with middle Terms or

or Arguments whereby the Thing proposed may

be prov'd or disprov'd.

In this Part of your Work, (viz.) Comparing Ideas together, take due time, and be not too half to come to a Determination, especially in Point of Importance. Some Men when they see a little Agreement or Disagreement between Ideas, they presume a great deal, and so jump into the Conclusion: This is a short Way to Fancy, Opinion and Conceit, but a most unsafe and uncertain Way to true Knowledge and Wisdom.

V. RULE. In chufing your middle Terms or Ar. guments to prove any Question, always take such To picks as are furest, and least fallible, and which care the greatest Evidence and Strength with them. B not fo folicitous about the Number, as the Weigh of your Arguments, especially in proving any Pro polition which admits of natural Certainty, or o compleat Demonstration. Many times we do In jury to a Caufe by dwelling upon trifling Argu We amuse our Hearers with Uncertain ties by multiplying the Number of feeble Reason ings, before we mention those which are mor fubstantial, conclusive and convincing. And to often we yield up our own Affent to mere pro bable Arguments, where certain Proofs may b obtained.

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Yet it must be confess'd there are many Case wherein the growing Number of probable Argument increases the Degree of Probability, and gives great and sufficient Confirmation to the Trut which is sought; as,

(1.) When we are enquiring the true Sented any Word or Phrase, we are more confirmed the Signification of it by finding the same Expression

pression so used in several Authors, or in several

Places of the fame Author.

(2.) When we are fearching out the true Meaning or Opinion of any Writer, or enquiring into any facred Doctrine of Scripture, we come to a furer Determination of the Truth by feveral diffinct Places wherein the fame Thing is express'd or plainly implied; because it is not so probable that an honest skilful Reader should mistake the Meaning of the Writer in many Places, as he may in one or two.

(3.) When we would prove the Importance of any scriptural Doctrine or Duty, the Multitude of Texts, wherein it is repeated and inculcated upon the Reader, seems naturally to instruct us that it is a Matter of greater Importance, than other Things which are but slightly or singly mentioned in the

Bible.

(4.) In fearching out Matters of Fact in Times past or in distant Places (in which Case moral Evidence is sufficient, and moral Certainty is the utmost which can be attained) here we derive a greater Assurance of the Truth of it by a Number of Persons, or a Multitude of Circumstances concurring to bear Witness to it.

(5.) From many Experiments in natural Philolophy we more fafely infer a general Theorem,

than we can from one or two.

(6.) In Matters which require present Practice, both sacred and civil, we must content ourselves oftentimes with a mere Preponderation of probable Reasons or Arguments. Where there are several Reasons on each Side, for and against a Thing that is to be done or omitted, a small Argument added to the Heap may justly turn the Balance on one Side, and determine the Judgment, as I have noted in the Second Part of Logick.

To conclude; a growing Acquaintance with Matters of Learning, and a daily Improvement of our Understandings in Affairs human and divine, will best teach us to judge and distinguish in what Cases the Number of Arguments adds to their Weight and Force: It is only Experience can fully inform us when we must be determin'd by probable Topicks, and when we must seek and expect Demonstrations.

VI. Rule. Prove your Conclusion (as far as possible) by some Propositions that are in themselves more plain, evident, and certain than the Conclusion; or at least such as are more known, and more intelligible to the Person whom you would convince. If we neglect this Rule, we shall endeavour to enlighten that which is obscure by something equally or more obscure, and to consirm that which is doubtful by something equally or more uncertain. Common Sense dictates to all Men, that it is impossible to establish any Truth, and to convince others of it, but by something that is better known to them than that Truth is.

VII. RULE. Labour in all your Arguings to enlighten the Understanding, as well as to conquer and captivate the Judgment. Argue in such a manner as may give a natural, distinct, and solid Knowledge of Things to your Hearers, as well as to force their Assent by a mere Proof of the Question. Now to attain this End, the chief Topick or Medium of your Demonstration should be fetch'd, as much as possible, from the Nature of the Thing to be proved, or from those Things which are most naturally connected with it.

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Geometricians fometimes break this Rule with-

out Necessity, two Ways, (viz.)

I. When they prove one Proposition only by hewing what Absurdities will follow if the contradictory Proposition be supposed or admitted; This is called Reductio ad abfurdum*, or Demonstratio per impossibile; as for Instance, When they prove all the Radii of a Circle to be equal, by suppoling one Radius to be longer or shorter than another, and then shewing what absurd Consequences will follow. This, I confess, forces the Affent, but it does not enlighten the Mind by hewing the true Reason and Cause why all Radii are equal, which is derived from the very Construction of a Circle: For fince a Circle is formed by fixing one End of a strait Line in the Centre, and moving the other End round (or, which is all one, by Compasses kept open to a certain Extent) it follows evidently that every Part of the Circumference being thus described must be equally distant from the Centre, and therefore the Radii, which are Lines from the Center to the Circumference, must be all equal.

2. Geometricians forget this Rule when they heap up many far-fetch'd Lines, Figures and Proportions to prove some plain, simple and obvious Proposition. This is called a Demonstration per aliena & remota, or an Argument from unnatural and remote Mediums: As if in order to prove the Radii of a Circle are all equal I should make several Triangles and Squares about the Circle,

^{*}Note, This Rule chiefly refers to the Establishment of some Truth, rather than to the Resultation of Error. It is a very common and useful Way of arguing to resulte a salse Proposition, by shewing what evident Falshood or Absurdity will follow from it: For what Proposition soever is really absurd and salse, does effectually prove that Principle to be salse from which it is derived; so that this Way of resulting an Error is not so usually call'd Reductio ad absurdum.

and then form some Properties and Propositions of Squares and Triangles prove that the Radii of

a Circle are equal.

Yet it must be consessed, that sometimes such Question happen, that it is hardly possible to prove them by direct Arguments drawn from the Nature of Things, &c. and then it may not only be lawful, but necessary to use indirect Proofs, and Arguments drawn from remote Mediums, or from the Absurdity of the contradictory Supposition.

Such indirect and remote Arguments may also be sometimes used to confirm a Proposition which has been before proved by Arguments more direct

and immediate.

VIII. Rule. Though Arguments should give Light to the Subject, as well as constrain the Assent, yet you must learn to distinguish well between an Explication and an Argument; and neither impose upon yourselves, nor suffer yourselves to be imposed upon by others, by mistaking a mere Illustration for a convincing Reason.

Axioms themselves, or Self-evident Propositions may want an Explication or Illustration, the they

are not to be proved by Reasoning.

Similitudes and Allusions have oftentimes a very happy Influence to explain some difficult Truth, and to render the Idea of it samiliar and easy. Where the Resemblance is just and accurate, the Influence of a Simile may proceed so sar as to shew the Possibility of the Thing in Question: But Similitudes must not be taken as a solid Proof of the Truth or Existence of those Things to which they have a Resemblance. A too great Deference paid to Similitudes, or an utter Rejection of them seem to be two Extremes, and ought to be avoided. The late ingenious Mr. Locke, even

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even in his Enquiries after Truth, makes great Use of Similes for frequent Illustration, and is very happy in the Invention of them, tho' he warns us alfo left we mistake them for Conclusive Argu-

ments.

Yet let it be noted here, that a Parable or a Similitude used by any Author, may give a sufficient Proof of the true Sense and Meaning of that Author, provided that we draw not this Similitude beyond the Scope and Design for which it was brought; as when our Saviour affirms, Rev. iii. 3. I will come on thee as a Thief; this will plainly prove that he describes the Unexpectedness of his Appearance, tho' it will by no means be drawn to fignify any Injustice in his Design.

IX. RULE. In your whole Course of Reasoning keep your Mind sincerely intent in the Pursuit of Truth; and follow solid Argument wheresoever it leads you. Let not a Party Spirit, or any Pafson or Prejudice whatsoever, stop or avert the Current of your Reasoning in the Quest of true

Knowledge.

When you are enquiring therefore into any Subject, maintain a due Regard to the Arguments and Objections on both Sides of a Question: Confider, compare, and balance them well before you determine for one Side. It is a frequent, but a very faulty Practice to hunt after Arguments only to make good one Side of a Question, and entirely to neglect and refuse those which favour the other Side. If we have not given a due Weight to Arguments on both Sides, we do but wilfully misguide our Judgment, and abuse our Reason, by forbidding its Search after Truth. When we espouse Opinions by a secret Biass on the Mind thro' the Influences of Fear, Hope, Honour, Cre-Y 4

dit, Interest, or any other Prejudice, and then seek Arguments only to support those Opinions, we have neither done our Duty to God or to our selves; and it is a Matter of mere Chance if we stumble upon Truth in our Way to Ease and Preferment. The Power of Reasoning was given us by our Maker for this very End, to pursue Truth; and we abuse one of his richest Gifts, if we basely yield it up to be led astray by any of the meaner Powers of Nature, or the perishing Interests of this Life. Reason itself, if honestly obey'd, will lead us to receive the divine Revelation of the Gospel, where it is duly proposed, and this will shew us the Path of Life everlasting.

THE

FOURTH PART

OF

LOGICK.

Of Disposition and Method.

IT is not merely a clear and distinct Idea, a well-form'd Proposition, or a just Argument, that is sufficient to search out and communicate the Knowledge of a Subject. There must be a Variety and Series of them dispos'd in a due manner in order to attain this End: And therefore it is the Design of the last Part of Logick to teach us the Art of Method. It is that must secure our Thoughts from that Consusion, Darkness, and Mistake which unavoidably attend the Meditations and Discourses even of the brightest Genius who despites the Rules of it.

1. We shall here consider the Nature of Me-

thod, and the several kinds of it.

2. Lay down the general Rules of Method, with a few Particulars under them.

CHAP.

CHAP. I.

Of the Nature of Method, and the several Kinds of it, (viz.) Natural and Arbitrary, Synthetic and Analytic.

Ethod, taken in the largest Sense, implies the placing of several Things, or performing several Operations in such an Order as is most convenient to attain some End proposed: And in this Sense it is applied to all the Works of Nature and Art, to all the divine Affairs of Creation and Providence; and to the Artifices, Schemes, Contrivances and Practices of Mankind, whether in natural, civil, or sacred Affairs.

Now this orderly Disposition of Things includes the Ideas of Prior, Posterior, and Simultaneous; of Superior, Inserior, and Equal; of Beginning, End, and Middle, &c. which are described more particularly among the general Affections of Being in

Ontology.

But in Logick Method is usually taken in a more limited Sense, and the Nature of it is thus described: Method is the Disposition of a Variety of Thoughts on any Subject in such Order as may best serve to find out unknown Truths, to explain and confirm Truths that are known, or to fix them in the Memory.

It is distributed into two general Kinds, (viz.)

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Natural and Arbitrary.

Natural Method is that which observes the Order of Nature, and proceeds in such a manner as that the Knowledge of the Things which follow depends in a great measure on the Things which go before, and this is twofold, (viz.) Synthetic and

and Analytic, which are sometimes called Synthesis

and Analysis *.

Synthetick Method is that which begins with the Parts +, and leads onward to the Knowledge of the Whole; it begins with the most simple Principles, and general Truths, and proceeds by degrees to that which is drawn from them or compounded of them: And therefore it is called the Method of Composition.

Analytic Method takes the whole Compound as it finds it, whether it be a Species or an Individual, and leads us into the Knowledge of it by refolving it into its first Principles or Parts, its generic Nature, and its special Properties; and therefore

it is called the Method of Resolution.

As synthetic Method is generally used in teaching the Sciences after they are invented, fo

* The Word Analysis has three or four Senses, which it may not be im-

proper to take Notice of here.

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1. It fignifies the general and particular Heads of a Discourse, with their mutual Connections, both coordinate and subordinate, drawn out by way of Abstract into one or more Tables, which are frequently placed like an Index

at the Beginning or End of a Book.

2. It fignifies the resolving of a Discourse into its various Subjects and Arguments, as when any Writing of the ancient Prophets is refolv'd into the prophetical, historical, dostrinal, and prastical Parts of it; it is faid to be analysed in general. When a Sentence is distinguisht into the Nouns, the Verbs, Pronouns, Adverbs, and other Particles of Speech which compose it, then it is said to be analys'd grammatically. When the same Sentence is distinguish'd into Subject and Predicate, Preposition, Argument, Act, Object, Cause, Effect, Adjunct, Opposite, &c. then it is analys'd logically and metaphysically. This last is what is chiefly meant in the theological Schools, when they speak of analysing a text of Scripture.

3. Analysis signifies particularly the Science of Algebra, wherein a Queflion being propos'd, one or more Letters, as, x, y, z, or Vowels, as, a, e, i, &c. are made use of to fignify the unknown Number, which being intermingled with several known Numbers in the Question, is at last by the Rules of Art separated or releas'd from that Entanglement, and its particular Value is

found out by shewing its Equation, or Equality to some known Number.

4. It signifies analytical Method, as here explain'd in Logick.

† Note, It is confest that Synthesis often begins with the Genus, and proceeds to the Species and Individuals. But the Genus or generic Nature is then confider'd only as a physical or effential Part of the Species, tho' it be sometimes called an univerfal or logical Whole. Thus synthetic Method maintains its own Description still, for it begins with the Parts, and proceeds to the Whole which is compos'd of them.

analytic

analytic is most practis'd in finding out Thing's unknown. Though it must be confest that both Methods are sometimes employ'd both to find out Truth and to communicate it.

If we know the Parts of any Subject easier and better than the Whole, we consider the Parts distinctly, and by putting them together we come to the Knowledge of the Whole. So in Grammar we learn first to know Letters, we join them to make Syllables, out of Syllables we compose Words, and out of Words we make Sentences and Discourses. So the Physician or Apothecary knows the Nature and Powers of his Simples, (viz.) his Drugs, his Herbs, his Minerals, &c. and putting them together, and considering their several Virtues, he finds what will be the Nature and Powers of the Bolus, or any compound Medicine: This is the synthetic Method.

But if we are better acquainted with the Whole than we are with particular Parts, then we divide or resolve the Whole into its Parts, and thereby gain a distinct Knowledge of them. So in vulgar Life we learn in the Gross what Plants or Minerals are; and then by Chymistry we gain the Knowledge of Salt, Sulphur, Spirit, Water, Earth, which are the Principles of them. So we are first acquainted with the whole Body of an Animal, and then by Anatomy or Dissection, we come to learn all the inward and outward Parts of it. This is analytic Method.

According to this most general and obvious Idea of synthetic and analytic Method, they differ from each other as the Way which leads up from a Valley to a Mountain differs from itself, consider'd as it leads down from the Mountain to the Valley; or as St. Matthew and St. Luke prove Christ to be the Son of Abraham; Luke sinds it out by

by Analysis, rising from Christ to his Ancestors; Matthew teaches it in synthetic Method, beginning from Abraham, and shewing that Christ is found among his Posterity. Therefore it is a usual Thing in the Sciences, when we have by Analysis found out a Truth, we use synthetic Method to explain and deliver it, and prove it to be true.

In this easy View of Things, these two kinds of Method may be preserved conspicuously, and entirely distinct: But the Subjects of Knowledge being infinite, and the Ways whereby we arrive at this Knowledge being almost infinitely various, it is very difficult, and almost impossible, always to maintain the precise Distinction between these

two Methods.

This will evidently appear in the following Obfervations.

Obs. I. Analytick Method being used chiefly to find out Things unknown, it is not limited or confined merely to begin with some whole Subject, and proceed to the Knowledge of its Parts, but it takes its Rise sometimes from any single Part or Property, or from any thing whatsoever that belongs to a Subject which happens to be first and most easily known, and thereby enquires into the more abstruse and unknown Parts, Properties, Causes, Effects, and Modes of it, whether absolute or relative; as for instance,

(1.) Analysis finds out Causes by their Effects. So in the speculative Part of natural Philosophy, when we observe Light, Colours, Motions, Hardness, Sostness, and other Properties and Powers of Bodies, or any of the common or uncommon Appearances of Things either on Earth, or in Heaven, we search out the Causes of them. So by

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the various Creatures we find out the Creator, and

learn his Wisdom, Power and Goodness.

(2.) It finds out Effects by their Causes. So the practical and mechanical Part of natural Philosophy considers such Powers of Motion, as the Wind, the Fire, and the Water, &c. and then contrives what Uses they may be applied to, and what will be their Effects in order to make Mills

and Engines of various Kinds.

(3.) It finds out the general and special Nature of a Thing by considering the various Attributes of the Individuals, and observing what is common, and what is proper, what is accidental and what is essential. So by surveying the Colour, the Shape, Motion, Rest, Place, Solidity, Extension of Bodies, we come to find that the Nature of Body in general is solid Extension; because all other Qualities of Bodies are changeable, but this belongs to all Bodies, and it endures thro' all Changes; and because this is proper to Body alone, and agrees not to any thing else; and it is the Foundation of all other Properties.

Parts of a Thing, by having some Parts or Properties given. So the Area of a Triangle is sound by knowing the Height and the Base. So by having two Sides, and an Angle of a Triangle given, we find the remaining Side and Angles. So when we know Cogitation is the prime Attribute of a Spirit, we infer its Immateriality, and thence its

Immortality.

(5.) Analysis finds the Means necessary to attain a proposed End by having the End first assigned. So in moral, political, economical Affairs, having proposed the Government of Self, a Family, a Society, or a Nation, in order to their best Interest, we consider and search out what are the pro-

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per Laws, Rules and Means to effect it. So in the Practices of Artificers, and the Manufactures of various Kinds, the End being proposed, as making Cloth, Houses, Ships, &c. we find out Ways of composing these things for the several Uses of human Life. By the putting any of these Means in Execution to attain the End, is synthetic Method.

Many other Particulars might be represented to shew the various Forms of analytic Method, whereby Truth is found out, and some of them come very near to synthetic, so as hardly to be distin-

guished.

Obs. II. Not only the Investigation of Truth. but the Communication of it also is often practifed in fuch a Method, as neither agrees precifely to synthetic or analytic. Some Sciences, if you confider the whole of them in general, are treated in synthetic Order; so Physics or natural Philosophy begins usually with an Account of the general Nature and Properties of Matter or Bodies, and by Degrees descends to consider the particular Species of Bodies, with their Powers and Properties; yet it is very evident that when Philosophers come to particular Plants and Animals, then by Chymistry and Anatomy they analyse or resolve those Bodies into their feveral constituent Parts. On the other hand, Logick is begun in analytic Method; the whole is divided into its integral Parts, according to the four Operations of the Mind; yet here and there synthetic Method is used in the particular Branches of it, for it treats of Ideas in general first, and then descends to the several Species of them; it teaches us how Propositions are made up of Ideas, and Syllogisms of Propositions, which is the Order of Composition.

The antient scholastic Writers have taken a great deal of Pains, and engaged in useless Disputes about these two Methods, and after all have not been able to give such an Account of them as to keep them entirely distinct from each other, neither in the Theory or in the Practice. Some of the Moderns have avoided this Consusion in some Measure by confining themselves to describe almost nothing else but the synthetic and analytic Methods of Geometricians and Algebraists, whereby they have too much narrowed the Nature and Rules of Method, as the every thing were to be treated in mathematical Forms.

Upon the whole I conclude, that neither of these two Methods should be too scrupulously and superstitiously pursued, either in the Invention or in the Communication of Knowledge. It is enough if the Order of Nature be but observed in making the Knowledge of Things following depend on the Knowledge of the Things which go before. Oftentimes a mixed Method will be found most effectual for these Purposes; and indeed a wise and judicious Prospect of our main End and Design must regulate all Method whatsoever.

Here the Rules of natural Method ought to be proposed, (whether it be analytic, or synthetic, or mixt:) but it is proper first to give some Account of arbitrary Method, lest it be thrust at too great

a Distance from the first Mention of it.

Arbitrary Method leaves the Order of Nature, and accommodates itself to many Purposes; such as, to treasure up Things, and retain them in Memory; to harangue and persuade Mankind to any Practice in the religious or the civil Life; or to delight, amuse, or entertain the Mind.

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As for the Assistance of the Memory, in most Things a natural Order has an happy Influence; for Reason itself deducing one Thing from another, greatly assists the Memory by the natural Connection and mutual Dependence of Things. But there are various other Methods which Mankind have made use of for this Purpose, and indeed there are some Subjects that can hardly be re-

duced to Analysis or Synthesis.

In reading or writing History, some sollow the Order of the Governors of a Nation, and dispose every Transaction under their particular Reigns: So the sacred Books of Kings and Chronicles are written. Some write in Annals and Journals, and make a new Chapter of every Year. Some put all those Transactions together which relate to me Subject; that is, all the Affairs of one War, me League, one Confederacy, one Council, &c. tho't lasted many Years, and under many Rulers.

So in writing the Lives of Men, which is called Biography, some Authors sollow the Track of heir Years, and place every thing in the precise Order of Time when it occurr'd: Others throw he Temper and Character of the Persons, their rivate Life, their public Stations, their personal Occurrences, their domestick Conduct, their Speeches, heir Books or Writings, their Sickness and Death,

nto fo many distinct Chapters.

In Chronology some Writers make their Epochas begin all with one Letter: So in the Book alled Ductor Historicus, the Periods all begin with it as, Creation, Cataclysm, or Deluge, Chaldean Impire, Cyrus, Christ, Constantine, &c. Some wide their Accounts of Time according to the ur great Monarchies; Assyrian, Persian, Grean and Roman. Others think it serves the Meansy best to divide all their Subjects into the re-

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Those Writers and Speakers, whose chief Business is to amuse or delight, to allure, terrify, or persuade Mankind, do not confine themselves to any natural Order, but in a cryptical or bidden Method adapt every thing to their defigned Ends, Sometimes they omit those Things which might injure their Design, or grow tedious to their Hearers, tho' they feem to have a necessary Relation to the Point in hand: Sometimes they add those Things which have no great Reference to the Subject, but are suited to allure or refresh the Mind and the Ear. They dilate sometimes, and flourish long upon little Incidents, and they skip over, and but lightly touch the drier Part of their They place the first Things last, and the last Things first, with wondrous Art, and yet to manage it as to conceal their Artifice, and lead the Senses and Passions of their Hearers into a pleasing and powerful Captivity.

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It is chiefly Poesy and Oratory that require the and Practice of this kind of arbitrary Method: They seem omit Things essential which are not beautiful part they insert little needless Circumstances, and beau serv tiful Digressions, they invert Times and Actions in order to place every Thing in the most affect Four ing Light, and for this End in their Practice the neglect all logical Forms; yet a good Acquaintand whic with the Forms of Logick and natural Method is a which riewe admirable Use to those who would attain the A

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Arts in Perfection. Hereby they will be able to range their own Thoughts in such a Method and Scheme, as to take a more large and comprehensive Survey of their Subject and Design in all the Parts of it; and by this Means they will better judge what to chuse and what to resuse; and how to dress and manage the whole Scene before them, so as to attain their own Ends with greater Glory and Success.

CHAP. II.

The Rules of Method, general and special.

THE General Requisites of true Method in the Pursuit or Communication of Knowledge, may be all comprised under the following Heads. It must be (1.) Sase. (2.) Plain and Easy. (3.) Distinct. (4.) Full or without Desect. (5.) Short or without Superfluity. (6.) Proper to the Subject and the Design. (7.) Connected.

I. Rule. Among all the Qualifications of a good Method, there is none more necessary and important than that it should be fafe and source from Error; and to this End these four particular or special Directions should be observed.

I. Use great Care and Circumspection in laying the sect Foundations of your Discourse, or your Scheme of the Thoughts upon any Subject. These Propositions which are to stand as first Principles, and on which the whole Argument depends, must be siewed on all Sides with utmost Accuracy, lest an Ass.

Error being admitted there, should diffuse itself thro' the whole Subject. See therefore that your general Definitions or Descriptions are as accurate as the Nature of the Thing will bear: See that your general Divisions and Distributions be just and exact, according to the Rules given in the first Part of Logick: See that your Axioms be sufficiently evident, so as to demand the Assent of those that examine them with due Attention. See that your first and more immediate Consequences from these Principles be well drawn; and take the same Care of all other Propositions that have a powerful and spreading Influence thro' the several Parts of your Discourse.

For want of this Care, sometimes a large Treatise has been written by a long Deduction of Consequences from one or two doubtful Principles, which Principles have been effectually refuted in a few Lines, and thus the whole Treatise has been destroyed at once: So the largest and fairest Building sinks and tumbles to the Ground, if the Foundations and Corner-Stones of it are feeble and in-

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2. It is a very advisable Thing that your primary and fundamental Propositions be not only evident and true, but they should be made a little familiar to the Mind by dwelling upon them before you proceed farther. By this Means you will gain so full an Acquaintance with them, that you may draw Consequences from them with much more Freedom, with greater Variety, brighter Evidence, and with a firmer Certainty, than if you have but a slight and sudden View of them.

3. As you proceed in the Connection of your Arguments, fee that your Ground be made firm in every Step. See that every Link of your Chain of Reasoning be strong and good: For if but

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one Link be feeble and doubtful, the whole Chain of Arguments feels the Weakness of it, and lie exposed to every Objector, and the original Queftion remains undetermined.

4. Draw up all your Propositions and Arguments with so much Caution, and express your Ideas with such a just Limitation as may preclude or anticipate any Objections. Yet remember this is only to be done as far as it is possible, without too much entangling the Question, or introducing complicated Ideas, and obscuring the Sense. But if such a cautious and limited Dress of the Question should render the Ideas too much complicated, or the Sense obscure, then it is better to keep the Argument more simple, clear and easy to be understood, and afterwards mention the Objections distinctly in their sull Strength, and give a distinct Answer to them.

Ild Rule. Let your Method be plain and easy, so that your Hearers or Readers, as well as your self may run thro' it without Embarrassment, and may take a clear and comprehensive View of the whole Scheme. To this End the following particular Directions will be useful.

1. Begin always with those Things which are best known, and most obvious, whereby the Mind may have no Dissiculty or Fatigue, and proceed by regular and easy Steps to Things that are more dissicult. And as far as possible, let not the Understanding, or the Proof of any of our Positions, depend on the Positions that follow, but always on those which go before. It is a Matter of Wonder that in so knowing an Age as this, there should be so many Persons offering Violence daily to this Rule, by teaching the Latin Language by a Grammar written in Latin, which Method seems to require a Persect

perfect Knowledge of an unknown Tongue, in order to learn the first Rudiments of it.

2. Do not affect excessive Haste in learning or teaching any Science, nor burry at once in the midst of it, lest you be too soon involved in several new and strange Ideas and Propositions, which cannot be well understood without a longer and closer Attention to those which go before. Such sort of Speed is but a waste of Time, and will constrain you to take many Steps backward again, if you would arrive at a regular and compleat Know.

ledge of the Subject.

Reasonings into one Sentence or Paragraph, beyond the Apprehension or Capacity of your Readers or Hearers. There are some Persons of a good Genius, and a capacious Mind, who write and speak very obscurely upon this Account; they affect a long Train of Dependencies, before they come to a Period; they imagine that they can never fill their Page with too much Sense; but they little think how they bury their own best Ideas in the Croud, and render them in a manner invisible and useless to the greatest Part of Mankind. Such Men may be great Scholars, yet they are but poor Teachers.

4. For the same Reason avoid too many Sub-divisions. Contrive your Scheme of Thoughts in such a manner as may finish your whole Argument with as sew inferior Branchings as Reason will admit; and let them be such as are obvious and open to the Understanding, that they may come within one single View of the Mind. This will not only affist the Understanding to receive, but it will aid the Memory also to retain Truth: whereas a Discourse cut out into a vast Multitude of gradual Subordinations, has many Inconveni-

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ences in it; it gives Pain to the Mind and Memory, in furveying and retaining the Scheme of Discourse, and exposes the unskilful Hearers to mingle the superior and inferior Particulars together, it leads them into a thick Wood instead of open Day-light, and places them in a Labyrinth

instead of a plain Path.

5. Give all Diligence in your younger Years to obtain a clear and easy Way of expressing your Conceptions, that your Words, as fast as you utter them, may stamp your own Ideas exactly on the Mind of the Hearer. This is a most happy Talent for the Conveyance of Truth, and an excellent Security against Mistakes and needless Controverfies.

IIId RULE. Let your Method be distinct, and without the perplexing Mixture of Things that ought to be kept separate, and this will be easily

practifed by four Directions.

1. Don't bring unnecessary heterogeneous * Matter in your Discourse on any Subject; that is, don't mingle an Argument on one Subject with Matters that relate entirely to another, but just so far as is necessary to give a clearer Knowledge of the Subject in hand. Examples in Logick may be borrow'd from any of the Sciences to illustrate the Rules: But long Interpositions of natural Philosopby, of the Imagination and Passions, of Agency of Spirits united to Bodies, &c. break the Thread of Discourse, and perplex the Subject.

2. Let every complicated Theme or Idea be divided into its distinct single Parts, as far as the Nature of the Subject and your present Design requires it. Tho.

^{*} Things of one Kind are called bomogeneous, Things of different Kinds are beterogeneous.

you must not abound in needless Subdivisions, yet something of this Work is very necessary; and it is a good Judgment alone can dictate how far to

proceed in it, and when to stop.

Compound Ideas must be reduced to a simple Form in order to understand them well. You may easily master that Subject in all the Parts of it by a regular Succession, which would confound the Understanding to survey them at once. So we come to the Knowledge of a very perplexed Diagram in Geometry, or a complicated Machine in Mechanics, by having it parcelled out to us into its several Parts and Principles, according to this,

and the foregoing Rule of Method.

3. Call every Idea, Proposition and Argument to its proper Class, and keep each Part of the Subject in its own Place. Put those things all together that belong to one Part or Property, one Confideration or View of your Subject. This will prevent needless Repetitions, and keep you from intermixing Things which are different. must maintain this Distinction of Things and Places if we would be fafe from Error. It is Confufion that leads us into endless Mistakes, which naturally arise from a Variety of Ideas ill-joined, illforted, or ill-disposed. It is one great use of Method, that a Multitude of Thoughts and Propofitions may be fo distinctly ranged in their proper Situations, that the Mind may not be overwhelmed with a confused Attention to them all at once, nor be distracted with their Variety, nor be tempted to unite Things which ought to be separated nor to disjoin Things which should be united.

4. In the Partition of your Discourse into distinst Heads, take beed that your Particulars do not interfere with the General, nor with each other. Think

it is not enough that you make use of distinct Expressions in each Particular, but take care that the Ideas be distinct also. It is mere Foolery to multiply distinct Particulars in treating of Things, where the Difference of your Particulars lies only in Names and Words.

IVth RULE. The Method of treating a Subject should be plenary or full, so that nothing may be wanting; nothing which is necessary or proper should be omitted.

When you are called to explain a Subject, don't pass by, nor skip over any thing in it which is

very difficult or obscure.

When you enumerate the Parts or the Properties of any Subject, do it in a complete and comprehensive manner.

When you are afferting or proving any Truth, fee that every doubtful or disputable Part of the

Argument be well supported and confirmed.

If you are to illustrate or argue a Point of Difficulty, be not too scanty of Words, but rather become a little copious and diffusive in your Language: Set the Truth before the Reader in several Lights, turn the various Sides of it to view, in order to give a full Idea and firm Evidence of the Proposition.

When you are drawing up a Narrative of any Matter of Fact, see that no important Circum-

stance be omitted.

When you propose the Solution of any Difficulty, consider all the various Cases wherein it can happen, and shew how they may be solved.

In short, let your Enumerations, your Divisions and Distributions of Things be so accurate, that

no needful Part or Idea may be left out.

This Fulness of Method does not require that every thing should be said which can be said upon any Subject; for this would make each single Science endless: But you should say every thing which is necessary to the Design in View, and which has a proper and direct Tendency to this End; always proportioning the Amplitude of your Matter, and the Fulness of your Discourse to your great Design, to the Length of your Time, to the Convenience, Delight and Profit of your Hearers.

Vth Rule. As your Method must be full without Desiciency, so it must be short, or without Superfluity. The Fulness of a Discourse enlarges our Knowledge, and the well-concerted Brevity saves our Time. In order to observe this Rule, it will be enough to point out the chief of those Superfluities or Redundancies, which some Persons are guilty of in their Discourses, with a due Caution against them.

in different Parts of your Discourse. It must be confess'd there are several Cases wherein a Review of the same foregoing Proposition is needful to explain or prove several of the following Positions; but let your Method be so contrived, as far as possible, that it may occasion the sewest Rehearsals of the same Thing; for it is not grateful

to the Hearers without evident Necessity.

2. Have a Care of a tedious Prolixity, or drawing out any Part of your Discourse to an unnecessary and tiresome Length. It is much more honourable for an Instructor, an Orator, a Pleader, or a Preacher, that his Hearers should say, I was asraid be would bave done, than that they should be tempted to shew Signs of Uneasiness, and long for the Conclusion.

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Besides, there is another Inconvenience in it: when you affect to amplify on the former Branches of a Discourse, you will often lay a Necessity upon yourfelf of contracting the latter and most useful Parts of it, and perhaps prevent yourself in the most important Part of your Design. Many a Preacher has been guilty of this fault in former Days, nor is the present Age without some Instances of this Weakness.

3. Do not multiply Explications where there is no Difficulty, or Darkness, or Danger of Mistake. Be not fond of tracing every Word of your Theme thro' all the grammatical, the logical and metaphyfical Characters and Relations of it, nor shew your critical Learning in spreading abroad the various Senses of a Word, and the various Origin of those Senses, the Etymology of Terms, the synonymous and the paronymous or kindred Names, &c. where the chief Point of Discourse does not at all require it. You would laugh at a Pedant, who professing to explain the Athanasian Creed, should acquaint you, that Athanasius is derived from a Greek Word, which fignifies Immortality, and that the same Word 'Alavaría signifies also the Herb Tanfie.

There are some Persons so fond of their learned Distinctions, that they will shew their Subtilty by distinguishing where there is no Difference: And the same filly Affectation will introduce Distinctions upon every Occurrence, and bring three or four Negatives upon every Subject of Discourse; first to declare what it is not, and then what it is: Whereas fuch Negatives ought never to be mention'd where there is no apparent Danger of Miftake. How ridiculous, would that Writer be, who, if he were speaking of the Nicene Creed, should declare negatively, 1. That he did no.

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mean the Dostrine which the Inhabitants of Nice believed, nor (2.) A Creed written by them, but (3.) Positively a Creed composed by several Christian Bishops met together in the City of Nice? The Positive is sufficient here, and the two Negatives

are impertinent.

4. Be not fond of proving those Things which need 200 Proof, such as self-evident Propositions and Truths univerfally confess'd, or such as are intirely agreed to and granted by our Opponents. this vain Affectation of proving every Thing that has led Geometricians to form useless and intricate Demonstrations to support some Theorems, which are fufficiently evident to the Eye by Inspection, or to the Mind by the first mention of them; and it is the fame Humour that reigns fometimes in the Pulpit, and spends half the Sermon in proving fome general Truth which is never disputed or doubted, and thereby robs the Auditory of more useful Entertainment.

r. As there are some things so evidently true, that they want no Proof, so there are others so evidently false that they want no Refutation. It is mere trifling, and a waste of our precious Moments, to invent and raise such Objections as no Man would ever make in earnest, and that merely for the fake of answering and solving them: This breaks in notoriously upon the due Brevity of Me-

thod.

6. Avoid in general all learned Forms, all Trappings of Art, and Ceremonies of the Schools, where there is no need of them. It is reported concerning the late Czar of Muscovy, that when he first acquainted himself with mathematical Learning, he practised all the Rules of Circumvallation and Contravallation, at the Siege of a Town in Livonia 3 Livonia; and by the Length of those Formalities he lost the Opportunity of taking the Town.

7. Don't suffer every occasional and incidental Thought to carry you away into a long Parenthefis, and thus to stretch out your Discourse, and divert you from the Point in Hand. In the Pursuit of your Subject, if any useful Thought occur which belongs to some other Theme, note it down for the fake of your Memory on some other Paper, and lay it by in reserve for its proper Place and Season: But let it not incorporate itself with your present Theme, nor draw off your Mindfrom your main Business, tho' it should be never fo inviting. A Man who walks directly but flowly towards his Journey's End, will arrive thither much fooner than his Neighbour, who runs into every crooked Turning which he meets, and wanders aside to gaze at every thing that strikes his Eyes by the Way, or to gather every gaudy Flower that grows by the fide of the Road.

To sum up all; There is an happy Medium to be observed in our Method, so that the Brevity may not render the Sense obscure, nor the Argument feeble, nor our Knowledge merely superficial: And on the other Hand, that the Fulness and Copiousness of our Method may not waste the Time, tire the Learner, or fill the Mind with Trisles and Impertinencies.

The copious and the contracted Way of writing have each their peculiar Advantages. There is a proper Use to be made of large Paraphrases, and full, particular, and diffusive Explications and Arguments; these are fittest for those who design to be acquainted thoroughly with every Part of the Subject. There is also a Use of shorter Hints, Abstracts and Compendiums to instruct those who seek only a slight and general Knowledge, as well as to refresh the Memory of those who have learnt

the Science already, and gone thro' a larger Scheme. But it is a gross Abuse of these various Methods of Instruction, when a Person has read a mere compend or Epitome of any Science, and he vainly imagines that he understands the whole Science. So one Boy may become a Philosopher by reading over the mere dry Definitions and Divisions of Scheibler's Compendium of Peripateticism: So another may boast that he understands Anatomy, because he has seen a Skeleton; and a third profess himself a learned Divine, when he can repeat the Apostles Creed.

VIth RULE. Take care that your Method be proper to the Subject in Hand, proper to your prefent Design, as well as proper to the Age and Place

wherein you dwell.

1. Let your Method be proper to the Subject. All Sciences must not be learnt or taught in one Method. Morality and Theology, Metaphysics and Logick, will not be easily and happily reduc'd to a strict mathematical Method: Those who have tried have found much Inconvenience therein.

than to be proved; as Axioms or self-evident Propositions; and indeed all the first great Principles, the chief and most important Doctrines both of natural and revealed Religion; for when the Sense of them is clearly explained, they appear so evident in the Light of Nature or Scripture, that they want no other Proof. There are other Things that stand in need of Proof, as well as Explication, as many mathematical Theorems, and several deep Controversies in Morality and Divinity. There are yet other forts of Subjects which want rather to be warmly imprest upon the Mind by fervent Exbortations, and stand in more need of this than they

they do either of Proof or Explication; such are the most general, plain and obvious Duties of Piety towards God, and love toward Men, with a Government of all our Inclinations and Passions. Now these several Subjects ought to be treated in

a different Manner and Method.

Again, There are some Subjects in the same Treatise which are more useful and necessary than others, and some Parts of a Subject which are eminently and chiefly design'd by a Writer or Speaker: True Method will teach us to dwell longer upon these Themes, and to lay out more Thought and Language upon them; whereas the same Art of Method will teach us to cut short those things which are used only to introduce our main Subject, and to stand as a Scassolding merely to aid the Structure of our Discourse. It will teach us also to content ourselves with brief Hints of those Matters which are merely occasional and incidental.

2. Your Method must be adjusted by your Design; for if you treat of the same Subject with two disferent Views and Designs, you will find it necessary to use different Methods. Suppose the Doctrine of the sacred Trinity were your Theme, and you were to read a Lecture to young Students on that Subject, or if you design'd a Treatise for the Conviction of learned Men, you would pursue a very different Method from that which would be proper to regulate a practical Discourse, or a Sermon to instruct vulgar Christians merely in the pious Improvement of this Doctrine, and awaken them to their Duties which are derived thence.

In short, we must not first lay down certain and precise Rules of Method, and resolve to confine the Matter we discourse of to that particular Form and Order of Topicks; but we must well consider

consider and study the Subjett of our Discourse throughly, and take a just Survey of our present Design, and these will give sufficient Hints of the particular Form and Order in which we should handle it, provided that we are moderately skill'd

in the general Laws of Method and Order.

Yet let it be noted here, that neither the Subjest or Matter of a Discourse, nor the particular Design of it, can so precisely determine the Method, as to leave no room for Liberty and Va. riety. The very fame Theme may be handled, and that also with the same Design, in several different Methods, among which it is hard to fay which is the best. In writing a System of Divinity, some begin with the Scriptures, and thence deduce all other Doctrines and Duties. Some begin with the Being of God and bis Attributes, fo far as he is known by the Light of Nature, and then proceed to the Doctrines of Revelation. Some diflinguish the whole Subject into the Credenda and Agenda, that is, Things to be believed, and Things Some think it best to explain the to be done. whole Christian Religion by an bistorical Detail of all the Discoveries which God has made of himfelf to this lower World, beginning at the Creation in the first Chapter of Genesis, and so proceeding onward according to the Narrative of the Old and And there are others that en-New Testament. deavour to include the whole of Religion under these four Heads, (viz.) The Apostles Creed, the Lord's Prayer, the Ten Commandments, and the two Sacraments; tho' I cannot but think this is the least accurate of any. The same Variety may be allowed in treating other Subjects; this very Treatise of Logick is an Instance of it, whose Method differs very confiderably from any others which I have feen, as they differ also greatly from one another

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written. 3. Tho' a just View of our Subjett and our Defign may dictate proper Rules of natural Method, yet there must be some little Deference at least paid to the Custom of the Age wherein we dwell, and to the Humour and Genius of our Readers or Hearers, which if we utterly reject and disdain, our Performances will fail of defired Success, even tho' we may have followed the just Rules of Method: I will mention but this one Instance: In the former Century it was frequent with learned Men to divide their Theme or Subject into a great Multitude of coordinate Members or Parts, they abounded also in the Forms of Logick and Distinction, and indulged numerous Ranks of Subordination. Now tho' we ought not to abandon the Rules of iust Method and Division, in order to comport with the modish Writers in our Age who have renounced them, yet it is prudent to pay fo much Respect to the Custom of the Age, as to use these Forms of Division with due Moderation, and not affect to multiply them in fuch a manner as to give an early and needless Disgust to the generality of our present Readers. The same may be said concerning various other Methods of Conduct in the Affairs of Learning as well as the Affairs of Life, wherein we must indulge a little to Custom: And yet we must by no means suffer ourselves so far to be imposed upon and governed by it, as to neglect hose Rules of Method which are necessary for the afe, easy and compleat Enquiry into Truth, or the ready and effectual Communication of it to

VIIth RULE. The last Requisite of Method is, hat the Parts of a Discourse should be well connected;

A a and

and these three short Directions will suffice fo

this Purpose.

1. Keep your main End and Design ever in view and let all the Parts of your Discourse have a Tendency toward it, and, as far as possible, make tha Tendency visible all the Way: Otherwise the Reader or Hearers will have reason to wonder for what End this or that Particular was introduced.

2. Let the mutual Relation and Dependance of the several Branches of your Discourse be so just and evident, that every Part may naturally lead onward to the next, without any buge Chains or Break which interrupt and deform the Scheme. The Connection of Truths should arise and Appear in their fuccessive Ranks and Order, as the several Parts of a fine Prospect ascend just behind each other in their natural and regular Elevations and Distances, and invite the Eye to climb onward with con-Rant Pleasure till it reach the Sky. Whatsoever horrid Beauty a Precipice or a Cataract may add to the Prospect of a Country, yet such fort of his deous and abrupt Appearances in a Scene of Rea-Soning are real Blemishes and not Beauties. When the Reader is passing over such a Treatise, he often finds a wide Vacancy, and makes an uneafy Stop, and knows not how to transport his Thoughts over to the next Particular, for want of some Clue or connecting Idea to lay hold of.

3. Acquaint yourself with all the proper and decent Forms of Transition from one Part of a Discourse to another, and practise them as Occasion offers. Where the Ideas, Propositions and Arguments are happily disposed, and well connected, the Truth indeed is secure; but it renders the Discourse much more agreeable, when proper and graceful Expression joins the Parts of it together in so entertain.

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inuch refaining ing a manner, that the Reader knows not how to leave off till he hath arrived at the End.

These are the general and most important Rules of true Method; and tho' they belong chiefly to the Communication of Knowledge, yet an early and thorough Acquaintance with them will be of considerable Use toward the Pursuit and Attain-

ment of it.

Those Persons who have never any Occasion to communicate Knowledge by Writing or by publick Discourses, may also with great Advantage peruse these Rules of Method, that they may learn to judge with Justice and Accuracy concerning the Personance of others. And besides, a good Acquaintance with Method, will greatly assist every one in ranging, disposing and managing all human Affairs.

The particular Means or Methods for a farther Improvement of the Understanding are very various, such as, Meditation, Reading, Conversing, Disputing by Speech or by Writing, Question and Answer, &c. And in each of these Practices some special Forms may be observed, and special Rules may be given to facilitate and secure our Enquiries after Truth: But this would require a little Volume by itself, and a Treatise of Logick has always been esteem'd sufficiently compleat without it.

FINIS.

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